



Economic and Social Council

Distr.: General
26 March 2010

English only

Economic Commission for Europe

Conference of European Statisticians

Group of Experts on National Accounts

Tenth session

Geneva 26–29 April 2010

Item 6 of the provisional agenda

Review of the first draft of the publication

“Impact of Globalisation on National Accounts:
Practical Guidance”

Multi-National Enterprises and the Allocation of Output and Value Added to National Economies

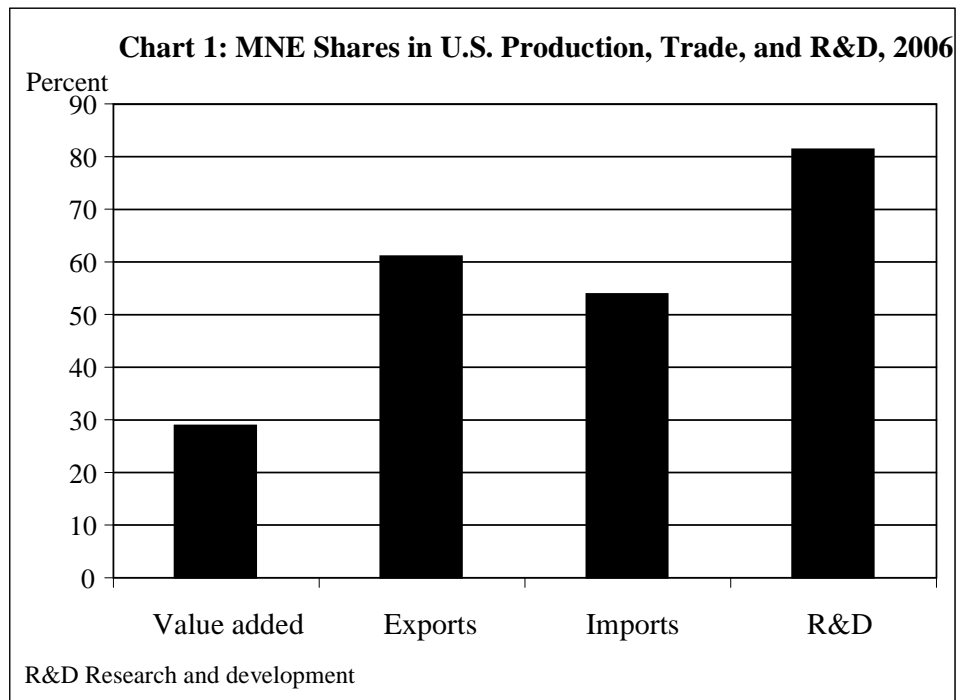
Note by the Bureau of Economic Analysis, United States

Summary

Multi-national Enterprises present special measurement challenges for national and balance of payments accounts. They allocate resources, price intra-company transactions, and bill transactions in a manner that is designed to maximize global net profits and their accounting of activities and transactions may not align well with the underlying economic behaviour that ideally should be captured in the national accounts of each of the countries where they operate. These accounting issues are a significant problem because of the growing size of Multi-national Enterprises activities.

I. Background and Introduction

1. Multi-national Enterprises (MNEs) present special measurement challenges for national and balance of payments accounts. This is in part because MNEs are in the business of maximizing their company-wide global after-tax profits. They allocate resources, price intra-company transactions, and bill transactions in a manner that is designed to reduce their global tax burden. As a result, national accounts measures based on MNEs' business records may not accurately reflect the underlying economic behavior of the real economy in the countries where they operate. This behavior is a significant problem because of the growing size of MNE activities. For the United States, for example, MNEs account for nearly 30 percent of value added, over 60 percent of exports, and over 50 percent of imports (Chart 1).



2. As a result of these practices, gross domestic product (GDP) may not always reflect the actual location of the productive activities that give rise to it. However, because the earnings of MNEs reflect income from foreign as well as domestic operations, gross national income (GNI) is less likely to be affected. For example, if a parent company in a high tax country sets an artificially low price on its exports of intermediate goods to an affiliate in a lower-tax country and an artificially high price on its overseas affiliate's exports of final goods back to the parent, it will lower exports, raise imports, and artificially lower GDP in the higher-tax country (and artificially raise GDP in the low tax country). However, the domestic investor's share in the added earnings (including reinvested earnings) attributed to the foreign affiliate in the low tax country will be included in the GNI of the high tax country, offsetting some or all of the reduction in GNI caused by the reduction in earnings attributable to the parent.

3. Although the extent of this problem cannot be precisely measured, it may be expected to be related to several of the factors that give rise to it. One of these is simply the

extent of foreign direct investment, a type of investment that is more important for some countries than others. Another is the significance of transactions involving intellectual property. As will be explained later, one source of what could be viewed as a distortion is the transfer of intellectual property products to foreign affiliates. Sending countries often tend to be those with advanced technological capabilities and high taxes. Receiving countries tend to be those with low taxes and may include both technologically advanced countries (which can add value to the property) and countries with little technological infrastructure.

II. Statistical Treatment Recommended in International Standards

4. Several different statistical guidebooks provide guidelines for statistics pertaining to multinational companies. Current recommendations on measuring flows of investment, the related income, and the resulting investment positions are contained in the International Monetary Fund's *Balance of Payments and International Investment Position Manual*, sixth edition. These recommendations are consistent with those in the *System of National Accounts 2008*. Additional detail on recording direct investment and on linkages between direct investment statistics and statistics on the underlying operations of direct investment enterprises are available in the *OECD Benchmark Definition of Foreign Direct Investment*, fourth edition. Finally, suggestions for economic variables and analytical measures to be used in describing and analyzing multinational companies and their effects are provided in the *OECD Handbook on Economic Globalisation Indicators*.

5. Probably the most significant features of existing international statistical guidelines as they relate to these issues are those pertaining to the residence of enterprises. Foreign subsidiaries or other foreign affiliates of direct investors are regarded as resident in their respective countries of location rather than as resident in the countries of their parent direct investors. This treatment is designed to place production in the country in which it occurs. However, artificial transfer pricing, use of consolidated overseas billing locations, or other intrafirm accounting practices can result in a misalignment between the location where the firm records its financial transactions and the location of production.

6. The recognition of certain types of intellectual property as produced assets in SNA 2008 can also distort the measures of GDP between economies where the property is developed, and economies where the associated patents are registered. The SNA 2008 recommends that payments for use of patented intellectual property should be recorded as service payments to the economy where the patents are registered or otherwise legally domiciled. To the extent that parent firms in high-tax countries transfer ownership of intellectual property to affiliates in low-tax countries it will lower service exports, raise service imports and lower GDP in the high tax countries, while raising the low-tax countries' exports, lowering their imports, and raising their GDP. However, the relative GNIs—which capture direct investors' shares in the net earnings of their overseas affiliates—will provide a more appropriate reflection of the income generated by production in each economy.

III. Measurement Problems and Proposals for Operational Treatment

7. Two broad categories of measurement problems are discussed below. The first relates to MNEs and the global allocation of income, the second, to MNEs and gaps in the statistical system.

A. Multinational Companies and the Global Allocation of Income

8. A growing number of large MNEs are transferring intellectual property to foreign affiliates (which when the affiliate is a special purpose entity are called royalty and license companies).¹ Often the transfer is to a country with lower tax rates than the country of the parent, which is important in high tax countries such as the United States. Between 1977 and 2007 the share of U.S. parent companies' receipts for the sale or use of intangible assets and for royalties and license fees with "tax-haven" countries increased from 13 percent to 37 percent (Table 1).

Table 1

U.S. Multinational Companies' Royalty and License Fee Receipts From, And Direct Investment Position in, Foreign Affiliates* [Millions of dollars]

	1977	1982	1989	2007
Receipts of royalties and license fees from foreign affiliates:				
All foreign affiliates	2,173	3,585	10,082	54,726
Foreign affiliates in tax haven countries	283	486	1,723	20,020
Tax haven share (percent)	13.0	13.6	17.1	36.6
U.S. direct investment position:				
In all countries	145,990	207,752	381,781	3,162,021
In tax haven countries	27,879	45,819	87,069	1,403,880
Tax haven share (percent)	19.1	22.1	22.8	44.4

*The countries designated as "tax havens" in constructing this table were obtained from a list appearing in Martin A. Sullivan, "U.S. Multinationals Move Profits to Tax Havens," *Tax Notes* (weekly newsletter of www.taxanalysts.com), February 9, 2004.

9. In the case of United States parents, they are either able to immediately write off the expense of research and development for tax purposes or, in some cases, take a direct tax credit. The parent can then sell the resulting intellectual property products to a subsidiary in a low-tax country at a relatively low price, or transfer them through a contract that charges the subsidiary a relatively low royalty. The parent is able to lower its global tax burden by: a) reducing its U.S. taxes during the development period by booking expenses in the United States, and b) by shifting the income from the property to a low-tax country, where it can be shielded from U.S. taxes and used as a source of financing for the overseas operations of the corporation. Since the stock price of a multinational is based on its global net earnings, such a reallocation of profits may benefit the MNE and its stockholders through asset appreciation as well as through increases in current earnings (in the United States, as in many countries, capital gains tax rates are lower than income tax rates). Alternatively, the MNE can defer taxes until they are repatriated. Whether this repatriation occurs during a tax "holiday" or not, deferral of taxes normally raises the present discounted value and stock price of an MNE.

10. MNEs can also reduce their global taxes through a number of other devices, including interposing a finance or holding company affiliate in a low-tax country between themselves and their foreign operating affiliates; structuring transfer prices between parents

¹ For example, see Glenn R. Simpson, "Irish Subsidiary Lets Microsoft Slash Taxes in United States and Europe," *Wall Street Journal* (November 7, 2005).

and their subsidiaries to shift net income toward subsidiaries in lower cost countries; establishing offshore factoring corporations in low tax countries that bill and collect for the parent's worldwide sales; and inverting the corporate ownership structure, with an overseas affiliate in a low-tax country becoming the parent that collects net income for the multinational's worldwide corporate structure.

11. The effect of all these practices is to lower recorded GDP in high-tax countries and raise recorded GDP in lower tax countries relative to the actual levels of economic activity occurring in those countries. Similar recording issues are of course also present in the affected components of the national accounts and balance of payments accounts. Robert Lipsey, a noted analyst of MNEs, has noted that "this ability of firms to shift the location of assets and profits by paper transactions internal to the firm . . . makes the location of the firms' production ambiguous."²

12. The challenges associated with these practices are highlighted in the second panel of Table 1, which shows the increasing share of United States direct investment in "tax haven" countries. Between 1977 and 2007, the share of U.S. direct investment in tax havens increased from 19 percent to 44 percent.

13. Recently, analysts have called the investment figures themselves into question. In 2006, Ricardo Hausmann and Federico Sturzenegger of the Harvard University Center for International Development argued that estimates of direct investment derived from company accounting records fail to take into account the value of a variety of intangible assets that tend to be most abundant in multinational firms.³ Proceeding from the observation that the United States regularly runs a surplus on investment income notwithstanding a sizable negative international investment position, they concluded that sources of value must exist that were not being fully captured in the estimates. The most important of these, in their view, was knowledge—"the notion that Foreign Direct Investments (FDI) abroad are a vehicle for the dissemination of ideas, blueprints, knowledge and that they are the vehicle for unaccounted exports of services produced by headquarters and used by affiliates around the world."

14. Hausmann and Sturzenegger suggested that alternative investment estimates capturing such unmeasured "Dark Matter" might be constructed by capitalizing the earnings generated by the investments. However, there is little basis for selecting an appropriate rate of return to use in the calculation, inasmuch as returns on direct investment are affected by a wide variety of factors and may differ markedly across countries and over time. Short of trying to shadow price a wide range of MNEs rather unique internal transactions at market prices, returns to intellectual property will always be difficult to measure and some misallocation of GDP and value-added is unavoidable.

15. On the other hand, there are a number of ways in which statistical agencies can improve reporting by MNEs. These measures include stepping up outreach to respondents, through visits to MNE's, communications, and clarification of instructions. In addition, statistical offices can undertake cognitive work with respondents on survey design to promote improved reporting. Examples of problems that may be partly addressed through such measures include problems many balance of payments compilers report in collecting statistics on reinvested earnings, which are part of a more general problem of obtaining data

² Robert E. Lipsey, "Measuring International Trade in Services," in *International Trade in Services and Intangibles in the Era of Globalization*, Marshall Reinsdorf and Matthew J. Slaughter, eds. (Chicago: University of Chicago Press, 2009), p. 47.

³ Ricardo Hausmann and Federico Sturzenegger, "Global Balances or Bad Accounting? The Missing Dark Matter in the Wealth of Nations," Center for International Development at Harvard University Working Paper 124, January 2006.

on activities located wholly outside the country. Some respondents fail to distinguish properly between the domestic and foreign parts of the firm, which results in such errors as counting as cross-border exports what are actually foreign affiliates' sales in their host countries. Such mistakes are understandable, since MNEs often view themselves from the perspective of their worldwide operations and place little importance on national boundaries. Nonetheless, they impair the accuracy of the allocation of output and incomes across countries and geographic regions.

16. However, by educating users on the importance of separating and correctly reporting cross-border sales from overseas sales through foreign affiliates and other transactions involving foreign affiliates, reporting by MNEs can be made more consistent with international guidelines. Such improved reporting can help to better align national and international accounts with the underlying pattern of production within and across countries. (For an example of how one country has used outreach to companies, see "Case Study of Ireland" at the end of this chapter.)

17. In the case of intellectual property, international standards have changed and evolved. In the Sixth Edition of the International Monetary Fund's (IMF's) Balance of Payments and International Investment Position Manual (*BPM6*), published in 2009, research and development (R&D) is regarded as a produced asset, and sales of patents are recorded as trade in services. This treatment follows from the view, reflected in both *BPM6* and the *2008 SNA*, that R&D should be brought within the production boundary, and that the results of R&D activity should be regarded as produced assets that can be traded like any other commodity.

18. Difficulties in the attribution of investment and income also can occur when the immediate owners of the investments differ from the ultimate owners at the top of the ownership chain. To the extent that companies can and will report the information, there is significant value to reporting investments in MNEs on an "ultimate beneficial owner" (UBO) basis, in addition to the immediate counterparty basis required for conventional balance of payments accounts. In some cases, the differences on the two bases are striking. For example, on an immediate counterparty basis, the book value of the direct investment position of Luxembourg in the United States was \$113 billion in 2008, but on a UBO basis, it was much smaller—only \$11 billion. For the Middle East, in contrast, the position on an immediate counterparty basis was \$15 billion, but on a UBO basis, it was considerably larger—\$51 billion. These divergent patterns reflect the fact that many investments whose ultimate origins are in other countries, such as those in the Middle East, are routed through countries of convenience such as Luxembourg.

19. The fourth edition of the *OECD Benchmark Definition of Foreign Direct Investment*, released in 2008, has addressed the need to follow investments to their ultimate origins and destinations. It includes specific recommendations for identification of ultimate investing countries. However, following investments down ownership chains to ultimate host countries has been placed on the research agenda, due to a variety of conceptual and practical issues that could not be resolved in the time available. Included among them are issues related to the fungibility of money and to the fact that additional funding may be added to those of the direct investor at each link in the ownership chain.

B. Multinational companies and gaps in the statistical system

1. Multinational Companies and the Measurement of Gross Domestic Product and Gross National Income at Current Prices

Offshoring of Royalties and Licenses

20. In the previous section, we discussed the transfer of intellectual property to royalty and license companies. Suppose that an intellectual property product (for example, software) was developed in country A, which is also the location of the parent corporation, and that a wholly owned subsidiary royalty and license company is established in country B to book revenue from license sales. The GDP of country A declines and the GDP of country B increases, though because of the 2008 SNA's special treatment of earnings on foreign direct investment, the GNI of countries A and B should be unaffected by where the license sales are booked. Economic theory suggests that economic ownership of the intellectual property resides with the parent corporation. The parent corporation undertook the risks associated with the development of the intellectual property product and is the final beneficiary of the rewards from its use. If the economic ownership conceptually belongs in country A, then the booking of the sales to the royalty and license company in country B implies that GDP in country A is understated and GDP in country B is overstated.

Outsourcing and Offshoring of Intermediate Services

21. The offshoring of intermediate services has also received considerable attention. There are two major measurement issues:

(a) How well do the data on trade in services capture the imports of intermediate services? Traditional services categories and sampling frames may fall behind in their ability to capture fast-changing services, and to the extent that they are missed, imports may be understated, causing GDP to be overstated;

(b) Many statistical offices use extrapolators that are based on fixed ratios, for example ratios of sales to value added. Rapid movement from in-house production of services to domestic or foreign sources would cause these ratios to change, implying bias in the extrapolators of GDP. This problem can be addressed by regularly benchmarking the national accounts to comprehensive and reliable source data that, in particular, cover the domestic and foreign suppliers of intermediate services.

Misleading Transfer Prices

22. As we have noted, MNEs may have incentives to raise or lower transfer prices on exports and imports moving to or from affiliated entities, though tax authorities will attempt to enforce economically appropriate transfer prices. To the extent that MNEs are successful in booking transfer prices that overstate or understate the true economic value of the transaction, GDP will be misstated. Assuming that the transfer prices are consistently reflected in the company's books, all three approaches to measuring GDP (the production approach, expenditure approach, and income approach) will be in error. However, because of the SNA's special treatment of reinvested earnings on foreign direct investment, GNI should be less affected by (or, in the case of wholly owned foreign affiliates, invariant to) the use of incorrect or misleading transfer prices (because GNI reflects the offsetting misstatement of income of the foreign subsidiaries). Unfortunately, statistical offices have very little ability to adjust for erroneous transfer prices. However, continuing efforts by tax authorities to audit and align transfer prices with market prices hold the potential for limiting and reducing the distortions due to transfer pricing.

2. Multinational Companies, Offshoring, and the Understatement of Real Gross Domestic Product and Productivity

Non-comparable imports

23. When a domestic parent firm switches from a domestic supplier of inputs to a foreign subsidiary supplying those inputs, the difference in price between the suppliers generally does not appear in the deflators that are used for domestic and foreign prices in the final expenditure approach or in the deflators for intermediate consumption in the production approach. The reason that this difference in price is not recorded is that for most countries, prices are collected from sellers rather than purchasers, and the indexes for domestic prices (PPIs) are compiled in a separate data collection from those for import prices. An article by Michael Mandel in *Business Week* argues that the failure to record the price declines that occur with the switch to foreign suppliers causes the growth of real GDP to be overstated during periods of increased outsourcing.⁴

24. Mandel suggests that the solution to the problem would be to modify the procedure for compiling the import price index when new imports appear by directly comparing the price of the imported good to the domestic good that it replaces. However, it may be difficult to make a direct comparison of the costs of the domestic versus the foreign made goods (imports). If, for example, a golf club company switches from a domestic supplier to a foreign supplier it is likely to be at the end of the existing contract for the old model “driver” and at the introduction of the new model. Now while to many the differences in models appear cosmetic, to the many golfers that believe a new model will cure all their problems, they are willing to pay a significant premium for the new club. As a result, price statisticians deem the older and newer models “noncomparable” and simply link the old index to a new index for the imported good at the same level and then extrapolate forward using period-to-period changes in the new imported good’s price. To the extent that the imported goods on a quality-adjusted basis are cheaper, real imports will be understated, and real GDP and productivity will be overstated. In addition, import prices will be overstated and overall inflation will be understated.

25. This import price problem is similar to the old “new goods” problem that occurs whenever new generations of goods and services replace earlier generations: how much of the price difference represents the improved quality or increased functionality of the new good and how much is price?

26. One method used for computers is to observe the drop in the price of the previous generation computer that is required to keep it competitive with the newer generation computer. Presumably this difference is the value consumers place on the improved characteristics embodied in the new computer. Alternatively, where lots of data is available on prices, sales, and characteristics of the good – as there is with computers – the hedonic regressions can separate out the value consumers place on the next generation computers’ characteristics from the pure price difference between the models.

27. Unfortunately, most imports are intermediate products and there is little available data with which to run hedonic regressions or compare market prices of domestic and foreign inputs. Indeed, the switch to foreign suppliers can occur quite quickly. In just a three- year period, most golf-club drivers in the United States went from being supplied by domestic suppliers to being supplied by Chinese suppliers.

⁴ Michael Mandel, “The Real Cost of Offshoring,” *Business Week* (June 18, 2007).

28. One indirect means of estimating the extent of the problem is suggested by a study by Feenstra and Reinsdorf.⁵ In effect, they estimated the elasticity of demand for imports and then measured the change in imports' market share and used the two pieces of information to "backout" the quality-adjusted price differential between imported and domestically supplied goods. For the United States, they found that real GDP growth was overstated by 0.1 percentage points and productivity growth, by 0.2 percentage points. They also note that this problem of "new goods" extends to virtually all goods and services. In the United States, the switch to new goods and services currently is addressed via hedonic techniques for about 20 percent of goods and services included in GDP. For the other 80 percent, linking is often used, suggesting that the upward bias imparted to real GDP by the overstatement of import prices and understatement of real imports (imports account for about 17 percent of US GDP) is more than offset by the overstatement of domestic prices and the resulting understatement of domestically produced GDP.

29. There are two possible solutions to this import price bias. The first would use micro-data research to estimate the price difference between domestic and foreign suppliers for similar goods in order to develop bias adjustments for import prices. The second, which is being explored by the United States (US) Bureau of Labor Statistics and the Census Bureau, is to develop a cost-based survey of domestic producers to supplement the existing import-export survey of importers and exporters.

IV. Recommendations for Future Work

30. The problems that have been discussed in this chapter may vary in their responsiveness to additional work. Although some of them may result in part from national accounts conventions concerning the residence of enterprises, these conventions are well established, and changing them likely would result in even greater problems than those that have been identified above. Treatment of intellectual property transactions, in contrast, likely is an area where further study would be worthwhile. Even if it does not result in changes in the recommended treatment, it could result in a better understanding of the conditions under which an economic transfer of an intellectual property product should be deemed to have occurred and of the values that should be ascribed to the transaction. Likewise, additional work is needed in tracking foreign direct investments to their ultimate destinations, which would allow greater consistency between the statistics on foreign direct investment recorded in balance of payments accounts and statistics on the related operations in countries of ultimate destination. As noted, this is an area that has been placed on the Organisation for economic co-operation and development (OECD) research agenda of issues on which further research is to be done following the publication of the fourth edition of the OECD Benchmark Definition of Foreign Direct Investment. Finally, the issue of noncomparable imports and associating the prices of products that had been purchased domestically with those of products that have begun to be imported needs further work. In the United States, this issue has been discussed at a number of seminars and conferences, and work is ongoing at the U.S. Bureau of Labor Statistics to develop new indexes that, if put into use, should at least partially address the issue.

⁵ Robert Feenstra and Marshall Reinsdorf, "Effects of Terms of Trade Gains and Tariff Changes on the Measurement of U.S. Productivity Growth," paper presented at NBER International Trade and Investment Program, March 28-29, 2008.

Annex I

Case Study of Ireland – Multinationals and their Impact on National Accounts and Balance of Payments Statistics

1. The Republic of Ireland is one of the most globalised economies in the World. The scale of openness of the economy can be gauged by Table 1 below which shows the importance of international trade in the economy.

Table 1
International Trade 2008

	<i>Exports</i>		<i>Imports</i>	
	<i>€bn</i>	<i>%GDP</i>	<i>€bn</i>	<i>%GDP</i>
Goods	81.3	44.2	55.0	30.0
Services	69.0	37.6	73.1	39.7
Total	150.3	81.8	128.1	69.7

2. The significance of MNEs in the International trade of Ireland can be seen if we consider that the top ten foreign owned MNEs in 2008 account for €51bn of exports or 34% of all exports of goods and services. These same enterprises accounted for imports of goods and services of €42 bn.

3. The overall trend in the activities of MNEs in Ireland relative to indigenous firms in Industry from 1985 onwards can be gauged from Table 2 below. These activities have been generally concentrated in Pharmaceuticals, Electronic Engineering and Software development.

Table 2
Output and Employment in Industry by Nationality of Owner

	1985	1990	1995	2000	2005
Total employment - Irish owned	111,010	105,884	116,714	132,666	110,473
Total employment - Foreign owned	76,289	88,293	103,864	122,978	107,330
Total Gross Output (€millions)	18,327	25,347	42,640	92,361	102,715
Percentage Gross Output - Irish Owned	50	45	35	22	18
Percentage Gross Output Foreign Owned	50	55	65	78	82

A. Consistency Unit

4. By the mid 1990s it was clear to the management of Central statistical office (CSO) that in order to counter the difficulties experienced in compiling the National Accounts, CSO needed to establish a unit dedicated solely to dealing with the activities of the MNEs operating in Ireland. This unit was called the Consistency Unit and was given the responsibility of analysing all aspects of data submitted to the CSO by MNEs and ensuring the coherence and plausibility of the various statistical and administrative returns used by CSO in compiling our National Accounts and other related statistics. This Unit is within National Accounts but interacts with a large network of statisticians working both in the survey areas and with administrative records. The administrative records, which are particularly important for Ireland, are the Corporation Tax files.

5. All of the data submitted to the Office by the 100 most significant MNEs is analysed and checked to see if a coherent picture is emerging from the data. Where this is not the

case the MNE is contacted and visited if necessary to discuss their operations in some detail in order to resolve whatever the cause of the inconsistency might have been. The staff of the Unit includes a Chartered Accountant who assists in these company visits and more generally advises on accountancy matters relating to the statistics being compiled.

6. There are some important features in the Irish statistical system that facilitate the consistency analysis:

(a) The CSO publishes the merchandise trade and BOP data (based on statistical surveys) which means that, when adjustments are required, they can be applied at the most appropriate source;

(b) The CSO's unique access to company accounting records held by the Revenue Commissioners (tax authorities) allows a detailed comparison of the operating surplus calculations for large companies with their profits data from the BOP source. This allows for a reconciliation of operating surplus and primary income outflows at a very detailed level, so that GDP and GNI calculations for 'consistency' companies can be balanced;

(c) The Consistency Unit brings together a wide range of data for the top individual exporters, including monthly turnovers, annual turnovers, purchases, stocks, imports, exports, value added, service imports and exports and Balance of Payments profit variables. A limited number of variables are compared each quarter but the more detailed examinations are only possible on an annual basis since the detailed Structural Business Survey results and tax accounts for each company are only available annually;

(d) The majority of the MNEs export all of their outputs and also import most of their raw materials. It is therefore possible to build up a coherent picture of each company, comparing turnover with exports and purchases with imports.

7. When dealing with the inter affiliate trade of MNEs difficulties can arise in respect of estimating the market prices that apply to these transactions. However, in general the approach followed by CSO in achieving consistency is to focus on the overall impact of the MNE on the macro economic accounts of Ireland. In doing this Consistency Unit does not in general adjust data to remove the impact of transfer pricing. Instead we ensure that the value added generated in the economy by an MNE is outflowed through the profits earned being attributed to the foreign parent. Therefore all that remains in the economy are the compensation of employees, tax paid and the value other local linkages in the economy.

8. Adopting this approach reduces the possibility of creating international asymmetries as it is difficult to coordinate the adjustments by NSIs in both exporting and importing economies to the value of goods and services that might be subject to transfer pricing.

9. However, a major drawback of following this approach is that productivity measures based on GDP can be distorted and overstated. Consequently, gross national income (GNI) rather than GDP is a better indicator of national wellbeing in the case of Ireland. This is due to the large share of GDP explained by profits (see Table 3 below), which although generated in Ireland, accrue to the benefit of foreign parent corporations. These profits are included in Irish GDP but are excluded from its GNI.

Table 3
Transition from GDP to GNI

<i>Period</i>	<i>GDP</i> <i>(€millions)</i>	<i>Net Factor Income</i> <i>from Rest of the World (€millions)</i>	<i>GNI</i> <i>(€millions)</i>
2007	189,751	-28,507	161,244
2008	183,991	-27,231	156,760

B. Other MNE Activities

10. In addition to the corporations covered by the Consistency Unit, the impact of MNEs on the Irish National Accounts also extends to companies performing specific activities that would formerly have been carried out at corporate headquarters. These activities involve Captive and Agency Insurance, Treasury companies, Special Purpose Vehicles, Shared Services, Call centres etc. Table 4 below gives some idea of the scale of some of these activities in Ireland in 2008.

Table 4

Financial and Other Services companies related to MNEs

<i>Type of Activity</i>	<i>No of companies</i>	<i>Balance Sheet Value⁶</i> <i>€millions</i>
Treasury Companies – (Agency, Captive, Standalone etc.)	148	256,567
Securitization Vehicles (SPVs, SPEs, Conduits etc.)	237	243,088
Insurance companies - captive and agency	92	14,251
Leasing companies	39	36,106
Total	516	550,012

11. These activities are generally ancillary to the main activity of the MNE. However, the scale of some of the activities are quite significant and pose a different challenge to that addressed by the Consistency Unit. In these cases we are primarily making use of the Balance of Payments survey responses. These questionnaires have been customised for the various activities being covered hence there is a different form for Insurance activities and for Treasury activities etc. A detailed consultation process with various industry groups took place when these questionnaires were being designed. Although the questionnaires differ, the objective is to obtain a full presentation of the quarterly or annual accounts with a full geographical breakdown for all items from both Current Account (P&L) and Balance sheet including stock/flow reconciliations. This approach meets both BOP and National Accounts data requirements.

12. The challenge when dealing with these types of entities is primarily one of identification. We need to identify a reporting entity for the firm because generally a service provider such as an Accountancy Firm or a Financial Services company or even a Legal company is charged with meeting the reporting obligations of these companies, some of whom have no separate physical presence in the economy. It follows therefore that they could very easily continue to operate without being identified by the NSI.

13. Through regular register inquiries and also using stock exchange listings (for securitization companies) together with the use of Industry Associations many of these types of companies have been identified but there is always the danger that some very small entities engaged in large transactions are being missed.

⁶ The value of Balance Sheet Assets is similar to that of liabilities for these types of Financial Flows and Stocks because both the financing (liabilities) originate from abroad and the investments (assets) are generally placed outside Ireland.