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GOODS FOR PROCESSING: A PRAGMATIC APPROACH[1]

Submitted by the Office for National Statistics, United Kingdom

The meeting is organised jointly with Eurostat and the Organization for Economic Co-operation and Development

EXECUTIVE SUMMARY

1. ‘Goods for processing’ (‘toll processing’) has the potential to cause mismeasurement of key economic statistics. This paper outlines practical, economic and taxation aspects of the issue and describes the pragmatic approach adopted by the UK’s Office for National Statistics (ONS).

THE ISSUE

2. Over recent years, the topic of ‘goods for processing’ has been the subject of discussions and papers within, for example, Eurostat working groups, the IMF’s Committee on Balance of Payments Statistics (BOPCOM) and working groups on the update of the System of National

[1] This paper has been prepared by David Hobbs at the invitation of the secretariat.

Accounts (SNA), etc. ‘Goods for processing’, known also by other names such as ‘**toll processing**’, is not a new issue. It has been the subject of decisions in the drafting of the IMF’s Balance of Payments Manual, 4th edition, (BPM4) and BPM5 - BPM5’s recommended treatment being different to BPM4’s.

3. The issue can be summarised as follows:
(i) Businesses in manufacturing make increasing use of outsourcing. This often takes place across national borders. Intermediate manufacturing processes are undertaken by other businesses, either within or outside the corporate group. It is the former case - of intra-group activity - that is likely to cause the main problems for economic analysis.
(ii) The transfer of goods between businesses often takes place without legal ownership changing hands. The motivation for such arrangements will be either economic efficiency (economies of scale, specialisation, access to global markets) or the management of tax burden.
(iii) Businesses may argue that such transfers of goods, along with the associated payments, are related to the provision of *services* and that, while goods have moved physically, and may have undergone substantial change of form, the related payments (‘toll processing fees’) are for *processing services*. Clearly, an alternative (‘substance over legal form’) view is that there has been an arm’s-length sale of goods/components and a subsequent repurchase of processed goods or products.
(iv) Problems of statistical analysis arise, such as those below:

- Should the transfer of goods be treated as a sale and subsequent purchase, or ignored?
- If the transfer is treated as a sale/purchase, should the associated values be recorded on a gross or net basis?
- If businesses are (or claim to be) unable to provide data on the value of the goods/products being transferred, which methods of estimation should be used?
- Should the businesses undertaking the processing activities be classified as manufacturers or service providers?

4. A number of associated issues arise for corporate group interactions:

- the ownership / location of inventories;
- the location of capital expenditure;
- the location of labour costs within the corporate group;
- practices of recharging costs between corporate group members, leading to distortions in turnover and cost data.

These issues are not addressed in this paper.

5. Toll processing is a variety of outsourcing and, as such, is a well established method of increasing organisation effectiveness, particularly within industry sectors such as chemicals, pharmaceuticals, oil and gas, metals etc. Also, toll processing arrangements are well-recognised tax minimisation structures and so tax legislation and tax collection procedures are continuously enhanced to protect national revenues.

6. Consequently, the scale of toll processing activity fluctuates as economic conditions vary and as tax legislation attempts to keep up with developments. This, together with the problems detecting/defining whether activities are actually straightforward manufacturing or service provision, means that measuring the absolute size of toll processing activity is difficult.

7. To allow clear and unambiguous reporting of toll processing activity, we need clear and internationally agreed definitions of such terms as toll processing, contract manufacturing, outsourcing, sub-contracting. It is evident that no such set of widely-agreed clear definitions yet exists, although individual institutions may have their own working definitions (see that of the UK's HM Revenue and Customs (HMRC) – given in paragraph 11 below).

BACKGROUND/EVOLUTION/POSITION OF BOPCOM, AEG ETC

8. 'Goods for processing' has been the subject of discussion during several revisions of the Balance of Payments Manual (BPM). The 4th edition of BPM (i.e. BPM4) directed that 'goods for processing' should be treated as a *service* activity but this was later changed in BPM5 to a treatment as *goods.*

9. Recent deliberations towards the production of the forthcoming BPM6 have not yet produced a clear way forward although at the 12-15 September meeting of the OECD's International Trade Statistics Experts (ITS) it was reported that consultation within the EU had shown a large majority of member states in favour of the *status quo* (i.e. recording as movements of goods).

10. Appendix A gives an overview of recent international deliberations on this matter.

TAX ISSUES

11. Toll processing as a tax avoidance device attempts to avoid transfer pricing regulation by setting up opaque structures. A manual by the UK's HM Revenue & Customs – *INTM465060 – Transfer pricing: tax planning structures* – identifies a range of business structures that involve manufacturing. This document illustrates that the tax avoidance motivations of toll processing are a real issue and it also provides a useful definition of toll processing and other variations of outsourcing, as listed below:
(i) Licensed manufacturer – whereby a manufacturer makes goods under a relatively long-term licence agreement with a licensor, usually paying a royalty in return. The manufacturer will buy raw materials and/or semi-manufactured goods on its own account and bear the risks of selling the completed goods.
(ii) Contract manufacturer – Here the manufacturer, like a licensed manufacturer, owns its plant and machinery and employs its own labour, but acts as an agent, producing goods for the principal who guarantees to purchase the agent's output, subject to quality etc requirements. Thus, much of the risk is passed from the contract manufacturer to the principal. A contract manufacturer will, however, still bear the risks of purchasing and stocking raw materials and/or semi-manufactured goods.
(iii) Toll manufacturer – One step further away from arms-length manufacturing, and transferring further risk to the principal. Here, the principal purchases the raw materials /or semi-manufactured goods although the physical passage of these inputs will be direct to the manufacturing agent.

12. For both contract manufacturing and toll manufacturing (collectively termed *stripped risk manufacturers*), the agent is rewarded with a (sometimes modest) 'toll processing fee' - calculated on one of a number of possible bases, e.g. cost-plus, return on capital employed, or some hybrid. The HMRC manual goes on to explain that corporation tax (the UK tax on the

income of companies) ‘follows risk’ and so tax inspectors should examine where the risks actually lie when establishing whether the tax liabilities should lie with the agent or principle.

13. A useful coverage of the corporate tax avoidance mechanisms of contract manufacturing set-ups, and of other cross border business structures is given in the Commonwealth Association of Tax Administrators (CATA)’s document *The Tax Audit of Cross-Border Business Transactions: A self-study guide for tax examiners.*

14. Of course, toll processing arrangements also have implications for Value Added Tax (VAT). HMRC’s *Intrastat General Guide* (Feb 2005) makes it clear (5.17) that:

- although goods sent or received in the process cycle are regarded by the VAT system **as a service,** for Intrastat there is still a movement of goods which must be declared;
- although goods for process do not require an entry within the VAT return’s boxes, they must be shown within the Supplementary Declarations.

15. The General Guide explains further (Appendix D2a.) that ‘goods to be processed and returned without change of ownership’ should be included within the Supplementary Declarations on the following bases:

- goods for processing: at the cost of goods;
- after process: at the cost of goods including price of process.

16. Noticeably, the General Guide seems to use three terms interchangeably:

- ‘cost of goods including price of process’;
- ‘enhanced value of the goods’;
- ‘the goods value plus the price of the process’ (even though, the price of the process (i.e. the toll processing fee) may not, in a tax avoidance situation, represent a true economic price.

17. The General Guide (Appendix K) defines a ‘process’ thus: ‘Process covers operations (transformation, construction, assembling, enhancement, renovation …) with the objective of producing a new or really improved item. *This does not necessarily involve a change in the product commodity code’*.

18. Although no estimates of tax revenue losses relating to toll processing are available, toll processing is a well recognised international issue. The November 2004 issue of *The Russia Journal*, for example, indicated that one company within the Russian aluminium industry may have protected income of around $600 to $800 million per annum from taxation with a cost to the Russian treasury of around $115 million per annum, primarily through the VAT and export duty relieves.

HOW ONS HAS DEALT WITH THE ISSUE

19**.** Goods for processing, or toll processing, has been identified as an issue by ONS though its normal data validation procedures and through its communications with key businesses. These procedures continue but do not solve the problem of how to deal with the data collection and reporting issues identified.

20**.** In the absence of clear guidance internationally, ONS has developed a pragmatic

approach to dealing with the issue of toll processing which combines a variety of direct data collection and estimation techniques. It works on the assumption that goods for processing activity should be treated as manufacturing activity and that materials, semi-manufactured goods, etc. transferred under such arrangements should be treated as arm-length transactions at full value.

21. Some adjustments to statistical outputs have been made by ONS over the past few years, to allow for the impacts of toll processing:

- A range of investigations into companies identified as undertaking toll processing activity were undertaken in 2003 and 2004;
- These led to adjustments being made within the Input-Output Supply and Use tables within the 2004 and 2005 National Accounts exercises covering the years 2001 to 2003;
- In some cases, liaison with HMRC enabled the required data to be obtained to facilitate appropriate adjustments. These adjustments affected the estimates of specific industries' gross value added, intermediate consumption, total output and exports of goods as appropriate. In many cases GVA did not need adjusting.

22. HMRC has reduced the number of tax loopholes relating to toll processing recently, and hence some of the motivations have been removed. However, discussions with businesses indicate that, in some industries (e.g. oil), toll processing is still prevalent. In many cases, activity is being reported as provision of manufacturing services (without the reporting of movements in goods). Time, and further investigations, will indicate whether large adjustments will be needed in future to align outputs and exports. This work has also raised a number of concerns, one of which is that whereas much documentation on toll processing focuses on the ownership issue, another issue exists – that of the nature of the goods being transferred in and out. After processing, the nature of the goods may be very different and classified differently from their previous incarnation. Thus, the imports and exports of goods are not aligned when a processing service provided is considered only as the export of a service, leading to product imbalances.

<u>The ONS short-term pragmatic approach</u>

23. Diagrams 1 and 2 below describe ONS's practical approach to obtaining gross ('turnover') data where:

- A business has been identified as undertaking toll processing activity;
- The businesses involved in the toll processing arrangements have been reporting inputs/outputs on a net basis (i.e. 'turnover' = the toll processing fee).

Diagram 1

If a manufacturer was initially non-toll processing and then starts toll processing, in order to ascertain the value of the goods being transferred in and out, we should**,** in order of preference:

First approach the principal, if it falls within the sampling frame, to supply monthly turnover and price data relating to the toll processing transactions of the agent.

↓ If not possible

Ask the toll processing agent to supply monthly turnover and price data, if it is available. If turnover data is unavailable, request volume data and estimate turnover data as price x volume, ensuring that price and volume data are both collected from the agent in this case.

↓ If not possible

Ask the toll processor to supply monthly price or turnover data which can be used as a proxy for factory gate prices and turnover (e.g. export prices from the owner company, which are not technically factory gate export prices).

↓ If not possible

Ask the toll processor to supply annual turnover data, if this is possible, or obtain this information from their annual financial statements. Alternatively, use Annual Business Survey data to calculate weights. Benchmark the imputed monthly data against this annual data.

↓ If not possible

Use an auxiliary variable as a proxy for sales data, e.g. work done. Possible approaches include:

- [Last sales value collected x work done current period] / work done last period collected
- [Last sales value collected on PRODCOM (perhaps reflated to current period) x work done current period] / work done last period collected. Then weight with other up to date sales data.
- This method could be used to obtain a monthly path through an annually benchmarked series. The total work done currently recorded by the PRODCOM survey could be used as the auxiliary or the company could be asked to provide a split of work done by product type either as part of the PRODCOM survey or in a separate exercise.

↓ If not possible

Impute the toll processor weights, turnover and price data using the usual imputation methods on the domestic producer prices, export and import prices.

Diagram 2

If a manufacturer has always been a toll processor:

Select the toll processor (agent) into the survey sample in the normal way and ask the principal for turnover and price data.

↓ If not possible

As above, but use the annual turnover as the last turnover value collected or impute a last turnover value from the turnover provided by a company of a similar employment size that also produces the product.

24. The proposals above were implemented in mid-2005 for a range of UK surveys. The 'work done' measured by PRODCOM will be used as an auxiliary variable to update the last weight calculated for toll processing manufacturers in the output price index. PRODCOM will continue to collect 'work done' from toll processing companies but could investigate obtaining this data analysed by product type. The ONS Inter-departmental Business Register unit and its Business Profiling Team will continue to classify these contributors as manufacturers. Additionally ONS will ensure that these companies are genuine toll processors and discover if they have a principal from whom ONS can collect the data or, if not, what data they can provide to ONS, following the preferences listed above.

A LONGER-TERM APPROACH

25. In the absence of the emergence of clear longer-term international guidance, ONS identified four options:

a) Continue indefinitely with the short-term approach and monitor companies' manufacturing processes to discover if companies are no longer actually toll processing i.e. that they have switched to regular manufacturing due to the withdrawal of tax benefits etc. Additionally, keep in regular contact with companies via the ONS Business Registry Unit to persuade the principal or agent to provide the required data. All surveys must treat toll processing consistently and should aim to collect data that is as close to the required variable as is feasible, using this data as an auxiliary to estimate required variable figures for current periods, where necessary;

b) Remove toll processors from manufacturing and possibly services surveys;

c) Investigate new methods of estimation based on the short-term solution and assess, confirm or increase accuracy of the methods applied. Continue close contact with toll processing companies. Request EUROSTAT to clarify toll processing in more detail (e.g. in NACE 2007) but treat as within the manufacturing sector until further guidance received;

d) Campaign for amendment of the UK Statistics of Trade Act so that toll processors must provide the ONS with the correct data for their full processing arrangements.

26. Overall, Option (c) was the most realistic and was implemented during 2005.

27. The pragmatic approach described above is just one possible approach to addressing the toll processing issue. Obviously, such an approach is not put forward as an ideal but as a basis of discussion and for comparison with the practice of other countries' statistical institutions.

ACCOUNTING ISSUES

28. Published business financial statements have not traditionally addressed the issue of toll processing. One recent interface with accounting derives from the EU's endorsement of International Financial Reporting Standards (IFRS). The main impact is that, if the principal is deemed to control the processing assets within the toll processing entity, then the toll processing agent must account for the assets as finance leased assets within its balance sheet (with a corresponding liability for future lease payments). The focus of IFRC4/IFRS17 is on the balance sheet and no mention is made of how the income/costs aspects should be accounted for, or whether the toll processing agent should account on a gross or net (processing 'service charge') basis. Published financial statements do not identify how such amounts have been accounted for. One large utilities company recently reclassified in its published financial statements £80m of 'operating costs' as 'interest costs' (as a result of the finance lease treatment). This directly affects (increases) the operating profit figure and reduces the after tax profit figure by a similar amount. No mention is made of the impact, if any, on reported turnover though.

CONCLUSION

29. It is clear that 'goods for processing' / toll processing presents a range of practical and statistical problems that need to be addressed via international agreement on the definition, treatment and measurement of such activity. The ONS pragmatic approach, described above, is put forward as an example of how one country's NSI has dealt with the issue.

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APPENDIX A

Background on recent discussions

'Goods for processing' has been the subject of discussion during several revisions of the IMF's Balance of Payments Manual (BPM):

- The 4th edition of the Manual (BPM4) directed that 'goods for processing' should be treated as a *service* activity.

- During the revision of BPM4, the matter was reconsidered resulting in BPM5 recommending a treatment as *goods*, in order to be more consistent with the treatment required by National Accounts requirements at the time.

- During the revision of BPM5 (still ongoing) the following decisions/deliberations ensued:

    - The Balance of Payments Technical Expert Group (BOPTEG) (one of the IMF's Technical Groups) recommended, in its June 2004 Outcome Paper 14b, that goods for processing activity should be treated as *services* activity.

    - At its 26-29 October 2004 meeting, the IMF's BOPCOM disagreed, on balance, with this view because of the problems of inconsistency with SNA93.

    - Despite the BOPCOM's disagreement, BOPTEG (at its 29 November to 2 December 2004 meeting) was in favour of rejecting the current treatment of goods for processing as transactions as goods.

    - The IMF's Advisory Experts Group on National Accounts (AEG), at its meeting of 8-16 December 2004, was unable to reach a clear conclusion on the matter and so decided to undertake a written consultation of BOPCOM and AEG members during 2005, in order to achieve an international decision.

    - The written consultation of the 25 EU Member States, ended in January 2005. The results of this consultation were not clear cut in that while a number of countries gave a clear signal on whether they favoured a treatment as goods or services, others were either undecided or unclear regarding their opinions. Eurostat Unit C4 presented a paper (attached below) to the Eurostat Balance of Payments Working Group meeting of 17-18 March 2005, in which Unit C4 made clear their view that the current treatment (as *goods*) should be maintained, for practical reasons.

    - The issue was discussed at The AEG meeting, 18-22 July 2005, Bangkok. The AEG recommended that changes of ownership should never be imputed, for cross-border, domestic or intra-group transactions.

    - An ONS paper on goods for processing (Stuart Brown) was discussed at a Jun 27 – Jul 1 2005 meeting of BOPCOM, Washington. The proposal to the meeting was that

goods for processing activity should be treated as *services*. BOPCOM voted (narrowly) against the proposal – i.e. BOPCOM voted to impute a change of ownership in all cases.

- The issue was discussed further at the OECD’s International Trade Statistics Experts (ITS) meeting, 12-15 September 2005, Paris. A paper by Anne Harrison posed the following questions to the AEG:

  i. Does AEG want to impute change of ownership to all goods for processing transactions?

  ii. Does AEG *not* want to impute change of ownership to all goods for processing transactions?

  iii. Does AEG want to carry on with the current and inconsistent mix of treatments?

  iv. If ii or iii, does AEG want to apply this choice also to domestic and intra-group transactions?

The paper posed the question of whether BOPCOM would wish to follow the AEG's (i.e. eventual SNA's) decision and whether AEG and BOPCOM agreed that, in any circumstances, further detailed data would need to be collected in order to estimate the impacts of the toll processing phenomenon and to aid analysis

At the same meeting, another paper was presented by Andreas Maurer of the World Trade Organisation, which called drew attention to the possibly increased burden on companies who may not have to hand the data necessary to comply with any changes to the current data collection regime for goods for processing activities. The paper assumes that businesses currently follow SNA/BPM instructions (that goods for processing activities should be recorded on a gross basis as though a change of ownership had taken place) and argues that changing to a net basis would cause considerable changes in the reported trading positions of some countries.
Additionally, a paper was presented by Hongman Jin of the Chinese Customs General Administration which proposed that a large proportion of China’s balance of trade asymmetries was caused by goods for processing activities routed via Hong Kong.

Although much discussion on the topic of toll processing / goods for processing took place at this meeting, no firm agreement was reached on the way forward. Eurostat reported that consultation with member states had shown a large majority in favour of the *status quo* (i.e. recording as movements of goods).

GLOSSARY

AEG	Advisory Experts' Group – one of the groups assembled by the IMF for the purposes of considering specialist matters, e.g. the revision of the SNA
BOPCOM	The IMF's committee on balance of payments statistics
CATA	Commonwealth Association of Tax Administrators
GVA	Gross value added
HMRC	The UK's tax authority – Her Majesty's Revenue and Customs
IFRS	International Financial Reporting Standards – the business accounting standards published by the International Accounting Standards Board (IASB). These standards have been made compulsory for all EU listed companies' consolidated accounts from 1 January 2005. They are also being adopted by a number of countries worldwide.
IMF	International Monetary Fund
NACE	*Nomenclature générale des Activités économiques dans le Communautés Européennes* - the European system of standard industrial classification
NSI	National statistical institution, e.g. the UK's Office for National Statistics
OECD	Organisation for Economic Cooperation and Development
ONS	Office for National Statistics (UK)
PPI, EPI and MPI	Some of the ONS's statistical surveys – Producer Price, Export Price Inquiry, Monthly Production Inquiry
PRODCOM	PRODucts of the European COMmunity - a harmonized system across the European Community for the collection and publication of product statistics
SNA	System of National Accounts
UNECE	United Nations Economic Commission for Europe
VAT	Value Added Tax

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