

Eleventh Meeting of the
IMF Committee on Balance of Payments Statistics

Washington, D.C., October 21-23, 1998

Shuttle Trade

Prepared by the Statistics Department
International Monetary Fund

Contents	Page
Summary	3
I. Background	5
II. Introduction	5
III. Forms of Shuttle Trade	6
A. Forms of trade included	7
Goods accompanied by traveler	7
Goods not accompanied by traveler	9
B. Reasons for development	9
State Trading	9
Treatment of travelers	11
Preferential treatment	11
Porous borders	12
IV. Treatment of Shuttle Trade in Balance of Payments	13
A. Current Methodology	13
Treatment of the trade	13
Counterpart and related transactions	16
B. Current Measurement Practices	16
Customs authorities	16
Balance of Payments Compilers	17
V. Conclusions and Recommendations	18
A. Treatment of Shuttle Trade in National Statistics	18
Measurement	19
Persistence	20
B. Post <i>BPM5</i> Considerations	20
Appendices	
I. Information on Shuttle Trade for Selected CIS and Baltic Countries	22
II. Methodology for Estimating Unrecorded Imports of Consumer Goods	27

SUMMARY

The origin of this paper lies in the consideration by the IMF Committee on Balance of Payments at its meeting in October 1997 of two papers on the topic.¹ These two papers considered country specific experience with the measurement and recording of shuttle trade. The Committee considered that the issues raised in these papers, and during its subsequent discussion, were of sufficient general interest to merit a broader investigation of shuttle trade by the Fund staff. The present paper is in response to this directive.

While the phenomenon of shuttle trade is not new to compilers of balance of payments statistics, the widespread emergence of shuttle trade (also known under other designations such as suitcase trade) and its significance for balance of payments statistics paralleled the liberalization of the economies of the countries of Eastern Europe, the Baltic States and the countries of the former Soviet Union. The paper notes that several factors contributed to the sharp growth of shuttle trade. Foremost among these factors were the inability of domestic suppliers to meet growing demand for consumer goods, favorable customs allowances for travelers and porous borders. The paper also identifies several variants of shuttle trade, with its most common form, especially in its incipient stages, occurring when a trader carries cash from his own country, purchases goods abroad and then returns with the goods for sale in the home market. In its more developed forms, with substantially larger volumes, shuttle trade has involved the separate shipment of merchandise as unaccompanied baggage.

From the perspective of compilers, the emergence of wide-spread shuttle trade poses two issues. The first is the most appropriate methodological treatment of shuttle trade in balance of payments statistics. The second is the means of measuring such trade and of identifying the counterpart transactions. On the methodological issue, the paper takes the position that, as shuttle trade is clearly undertaken for business purposes to make a profit, the appropriate treatment in balance of payments statistics is to record such trade under goods. The paper draws a distinction between goods accompanying travelers, which are classified under travel in *BPM5*, as these goods are destined for personal use, and goods purchased by merchants for resale. A distinction is also drawn in the paper between shuttle trade and merchanting and the paper notes that in merchanting it is the value of the services rendered by the transactor that are properly recorded in the balance of payments of the country of the

¹ Problems of Shuttle Trade in Balance of Payments Statistics: The case in Russia, prepared by the International Monetary Department, Central Bank of the Russian Federation, BOPCOM97/1/6.

trader and not the associated movement of goods.² Distinctions are also drawn between barter and border trade and shuttle trade. An additional issue in the treatment of shuttle trade is the recording of the counterpart entries. The paper notes the importance of tracking and recording such entries, where possible, either in the appropriate sector of the financial account, or where relevant under goods, if the revenue from shuttle trade exports is spent on goods for import.

In examining current practices for the measurement of shuttle trade, the paper concludes that measurement at source through customs records has generally been weak, although some countries have begun to develop customs recording of this trade. Appendix I of the paper examines for a number of countries current practices in measurement and estimation. At the level of balance of payments compilation, several countries where shuttle trade is significant have devoted considerable resources to its estimation through data models using sampling techniques. Appendix II of the paper presents the model used by the Russian authorities to estimate the magnitude of shuttle trade.

The paper also considers the issue of the persistence of shuttle trade. It notes that while the factors which imparted the initial impetus to shuttle trade have to a large extent become less important, differential price structures, tax advantages and employment structures suggest that some form of shuttle trade is likely to persist for the foreseeable future.

In addition, the following issues are raised in the paper for consideration by the committee.

- Should goods purchased by travelers to be sold at actual cost to friends and relatives be recorded under travel or goods?
- Should goods purchased by travelers that are not incidental to the travel be recorded under travel or goods?

²In the case that the goods are not resold in the same accounting period additional entries are required.

I. BACKGROUND

The trade pattern where goods were transported by or on account of travelers expanded rapidly early in the process of economic transformation in Eastern Europe and the Soviet Union. As this form of trade was relatively minor in the rest of the world in recent times, it was largely unmeasured in the economic accounting systems of the partner countries.³ The paper points out the necessity of measuring this activity, and its appropriate treatment in the balance of payments accounts.

II. INTRODUCTION

In July 1993 the Fund's balance of payments statistics mission visiting Moscow learned of the existence of what appeared to be a unique mechanism for the movement of large volumes of goods across the Russian Federation's customs frontier. In the mission's discussions of the coverage of Russian trade statistics with the authorities at the State Committee on Statistics, a form of trade was described as consisting of travelers making repeated visits abroad and returning with substantial volumes of goods in their accompanied luggage. At that time, Russian customs regulations allowed travelers to import US\$5,000 of goods without the assessment of any duty. Rough estimates offered by the authorities of the expected volume of such trade for Russia in 1993 were in the range of US\$1.5-2 billion.⁴

Subsequent missions to other countries in the Baltics and the former Soviet Union discovered that this form of trade was widespread, and the term shuttle trade gained broad usage in describing the phenomenon. Evidence was also found that this form of trade had existed, albeit at substantially lower levels, for a considerable number of years.

By the end of 1996 shuttle trade had become a matter of importance to the IMF Committee on Balance of Payments Statistics, with two papers on this topic being scheduled for their October 1997 meeting in Washington, D.C.⁵ The Committee also included the issue of measurement of international trade in goods statistics as a top priority issue in its 1997

³This hypothesis was confirmed by an informal survey of Western European countries conducted by the Fund in 1995.

⁴This mission initiated the discussion of shuttle trade as a distinct phenomenon which merited separate treatment in statistical compilation systems. It also appears to have coined the term shuttle imports. An earlier mission to Lithuania in June of 1992 had indicated concern about trade undertaken by households and small unregistered business that was not included in national trade statistics.

⁵IMF Committee on Balance of Payments Statistics, *Annual Report 1996*, P.15.

medium-term program, with the action item being the development of a paper on conceptual and practical reporting issues arising from shuttle trade.⁶

The purpose of this paper is to clarify the definitions and concepts pertaining to shuttle trade, and to review the difficulties of and approaches to measuring such trade. In addition, as a part of the preparation of this paper, a brief survey has been undertaken of selected countries where shuttle trade is considered to be important. This survey has been undertaken with the assistance of the Fund's resident statistical advisors in selected countries.

Descriptions of the forms of trade included in these discussions, the origin and causes of these trade patterns, and expectations for future developments of this trade are all discussed in Part III. Part IV addresses methodological and measurement issues, while part V presents recommendations for action. Appendix I provides a compendium of information on shuttle trade relating to conditions and practices in selected Baltic and CIS countries. Appendix II provides a detailed description of the methodology used by the Bank of Russia for estimation of unrecorded imports of consumer goods.

III. FORMS OF SHUTTLE TRADE

Shuttle trade is a form of unrecorded (or under-recorded) international transactions in goods that is currently existent at the edges of formal trade.⁷ A common feature of this trade is that it is typically associated with persons who are travelers.⁸ A number of designations have been applied to this trade, none of which is sufficiently inclusive, but which have gained use because they are descriptive of an important aspect of this trade (e.g., border, suitcase, hectic, or shuttle trade). A second characteristic of this trade is that it is opportunistic. It depends on

⁶IMF Committee on Balance of Payments Statistics, *Annual Report 1997*, P.9-12,18.

⁷It may be fairly argued that originally all trade was shuttle trade, and that the separation of trade from travel is a modern specialization of the service industry. Today, the shuttle trader in a Moscow open market may be a Caucasian resident who brought the goods from Istanbul or Dubai. Seven hundred years ago a Persian shuttle trader might have sold goods from China and India in Venice. As trading systems developed to their present form the movement of goods did not involve the traveller. The modern trade model is for procurement and sales offices of firms to initiate the trade process (which commonly does not involve travel), and then for the transportation, communications, financial, and other business services industries to assist in the arrangement of the trade related transactions and the movement of the goods.

⁸A traveler is an individual staying for less than one year, in an economy of which he is not a resident, for any purpose other than (i) being stationed on a military base or being an employee of an agency of his government, (ii) being an accompanying dependent of an individual mentioned under (i), or (iii) undertaking a productive activity directly for an entity that is a resident of that economy. See *Balance of Payments Manual*, Fifth Edition, 1993, par. 243-244.

(a) rigidities in the economic systems in place and the failure of these systems to react to the needs of markets, or (b) anomalies in regulations in an economy, which give these forms of trade a peculiar advantage. For the purpose of this paper, the term shuttle trade will be used as an inclusive term for all forms of trade described below.

A. Forms of trade included

Goods accompanied by traveler

One form of shuttle trade occurs when the trader carries cash from his country to a second country, buys goods in that second country, and then carries the goods back to his own country where these goods are sold. This form of shuttle trade is very common in the Commonwealth of Independent States (CIS) countries. A large portion of the goods sold in the CIS are purchased in the Peoples Republic of China, Turkey and the United Arab Emirates, with lesser amounts purchased in India, Israel, Pakistan and the Syrian Arab Republic. A common variant is for the trader to be from a third country (in the CIS states the traders are frequently from the Caucuses region). A less common variant is where the traveler brings the goods from his country to the second country and returns with cash.

While the most common form of shuttle trade relates to clothing and apparel, some examples of the variants of accompanied trade may be helpful in illuminating the response of the traders to market opportunities.

- Mobile equipment, such as automobiles, buses, and trucks, is driven across the frontier by the trader.⁹
- Farmers from the southern CIS states charter trains to carry themselves and their produce to the Russian Federation, and are dropped off with their goods at successive stops along the way. Several days later a train picks them up for

⁹Used automobiles are being driven in large number from Western Europe to countries in East Europe and the CIS states. During the period of the international embargo, both new and used automobiles were being driven from Macedonia, FYR into Yugoslavia (Serbia). In both cases the volumes involved have been significant within the balance of payments accounting context. The Bank of Russia models this trade for inclusion in its balance of payments accounts and has included both passenger cars and commercial vehicles in their estimates. (Finding of IMF's Statistics Department mission to the Russian Federation, February 1998). The movement of automobiles from Macedonia, FYR to Yugoslavia (Serbia) was pointed out to Fund staff by the Macedonian authorities in June 1995.

the return trip home along with any goods they have procured with the proceeds of their sales.¹⁰

- Small tank trucks are driven from Georgia into Armenia filled with gasoline. The origin of the gasoline is Azerbaijan.¹¹
- The weekend before the American national holiday of Thanksgiving in November 1992, turkeys appeared in the informal markets in Moscow.¹²

Another form of shuttle trade is that undertaken by individuals living near a border (border trade). This trade has been seen throughout the world, where certain goods are less expensive on one side of a border than on the other. In these cases, customs regulations usually have such low thresholds before goods being transported attract taxation, that the general assumption of balance of payments compilers is that the levels of such trade are not very significant and only modest efforts are needed to measure such trade. In the absence of low tax thresholds and aggressive enforcement by customs officials, border trade has flourished along the frontiers of some Eastern European and CIS states.¹³ In these cases, the trade appears to have reached levels that suggest that additional attention to its measurement is appropriate.¹⁴

¹⁰Officials of the State Committee on Statistics of the Russian Federation reported this example to Fund staff in July 1993. The authors have seen examples of travelers arriving at Moscow train stations with their goods (including agricultural products) and met these travelers in local markets. These goods are also transported by light trucks and automobiles.

¹¹Finding of IMF's Statistics Department mission to Georgia, November 1997.

¹²Reported to Fund staff by expatriate US nationals living in Moscow in November of 1992. Until that time, turkeys were not available in these markets. How these goods arrived in Moscow was not identified. However, the markets in which they were found were serviced almost exclusively by shuttle trade.

¹³This activity was first noticed in the August 1993, IMF's Statistics Department mission to Georgia.

¹⁴Finding of the IMF's Statistics Department mission to Georgia, November 1997.

Goods not accompanied by traveler

As the volumes of shuttle trade increased, the carriage of these goods by the traveler posed increasing problems.¹⁵ In the CIS countries these travelers began to have the goods shipped as unaccompanied luggage, as this luggage was accorded the same treatment as accompanied luggage by customs authorities.¹⁶ This development created a market opportunity for freight forwarding organizations to take over the shipping of the goods. These companies have evolved over the past several years into sophisticated full service providers of freight forwarding services. For example they pick up goods at the seller's warehouse, package it for international shipment, handle customs processing at the origin and destination countries, and take total responsibility for the goods until they are collected by the buyer in the destination country.¹⁷

It is clear that the separation between the traveler and the shipment of goods has grown substantially. However, it also appears that travel is necessary to initiate shipments and that follow up travel is needed to meet the regulatory requirements needed to keep goods flowing through the regulatory channel created by this travel.

B. Reasons for development

State Trading

To understand the origins and sharp growth of shuttle trade in the Baltics and CIS states one needs to consider the trade environment prior to the breakup of the USSR. The exchange and trade system within the USSR was an extension of the state planning system. It was conducted through an annual foreign exchange plan and managed by Vneshekonombank. Only a handful of trading agencies (approximately 50 at the beginning of 1988) were licensed to engage in external trade, and these were frequently associations that represented broad industrial groups. When a program of trade liberalization was introduced in 1988, the number of licensed trading agencies grew rapidly. By mid 1990 this number was approximately

¹⁵A casual examination of the manifest of a flight outbound from Istanbul, Turkey found ten packages (not counting personally checked luggage and carry on packages) weighing approximately 250 kilos each per passenger on the flight. Finding of the IMF's Statistics Department mission to Turkey, February 1997.

¹⁶The Turkish authorities defined the rule for unaccompanied baggage to cover shipments across an eight month period beginning two months before the arrival of the trader. Ibid.

¹⁷Government authorities in several CIS states have reported to the Fund that a small number of freight forwarding companies now control this business.

20,000.¹⁸ However, most of these “traders” were state enterprises looking to export the goods they produced. There was little focus on importing consumer goods.

The most reasonable explanation for the absence of attention to the importing of consumer goods imports within the formal economy appears to be related to the organizational structure of the Soviet economy. The formal retail trade industry was very small when compared to other industrial economies and the entire distribution industry was run by large organizations.¹⁹ This sector was inadequately developed to handle the distribution of commodities even in a centrally planned economy, much less a market economy.²⁰

When the Soviet economy began to open up in 1990 the retail trade sector was ill prepared to deal with the pent up demand for imported goods. This is still evident in the Moscow market today, where most of the retail trade space in buildings is taken up by luxury goods. There is a paucity of retail space when compared with major western cities.²¹ Out of necessity, retail space for ordinary consumer goods is largely found in open air markets.²²

The role of central planning was not nearly as pervasive in much of Eastern Europe, and the retail trade sectors in these countries were relatively more developed than in the CIS states. Thus, while the above lessons still apply, they do so with less force. This difference at least partially explains why shuttle trade has had a period of rapid growth in Eastern Europe following independence from the Soviet sphere of influence, which was then followed by a secular decline in the more economically advanced of these countries as their retail trade sectors were able to satisfy consumer needs.

¹⁸*A Study of the Soviet Economy*, by International Monetary Fund et. al., February 1991, Vol. 1, pp. 435-436. See also the discussion of the Soviet trade system on pp. 421-423,435-442.

¹⁹See the discussion in *A Study of the Soviet Economy*, op. cit., Vol. 3, pp. 35-39, and Table V.2.5., p. 52.

²⁰*Ibid.*, p.39.

²¹See *ibid.*, Table V.2.7., P.53.

²²One type of retail space that is common in the CIS states, that is not found in other industrial countries, consists of temporary shops set up in stairwells, halls and other casual spaces within government agencies. These shops sell a broad range of consumer goods, including perishables such as meat, fish, and pastries.

Treatment of travelers

During the Soviet period international travel was heavily restricted within Eastern Europe and the USSR. However, those who were allowed to travel faced relatively lax restrictions on what they could bring with them on their return trip. The USSR did not begin development of a customs system until the latter half of the 1980's and most "tariffs" were collected by the state trading organizations as a part of a process to regulate the prices of imported goods in relation to domestically produced goods.²³ As there was no need to do so, these tariffs were not collected at the border.

Within this setting, Soviet travelers institutionalized the practice of bringing large volumes of consumer goods back with them when they traveled abroad.²⁴ As customs duties were not an issue, and as noted earlier, the value limits for bringing in goods were very high, the border inspection was limited to searches for contraband and little attention was given to the value of goods being brought into the country.²⁵ Thus, when travel restrictions were lifted in the CIS states in the early 1990's the opportunity for using the shuttle mechanism was quickly recognized.

Preferential treatment

The treatment of shuttle trade with respect to tariffs and value added taxes as compared with home produced and other imported goods may provide strong incentives to employ the shuttle method in preference to other methods of bringing goods to market. In the CIS states the value added tax centers around 20 percent depending upon the commodity. Formal imports must pay a tariff of 10 percent or higher for most consumer goods.²⁶ Thus, if shuttle traded goods are allowed to enter an economy without payment of either form of tax they would have a minimum of a 30 percent advantage over the same goods entering the economy as formal imports, and a twenty percent advantage over similar goods produced within the home economy. As markups are traditionally smaller in the CIS states than found in industrial

²³Ibid., Vol. 1, pp, 254-255, 257-258

²⁴The long standing practice of such activities during the soviet period was confirmed by the local authorities at the State Committee on Statistic of the Russian Federation

²⁵This point has been confirmed by the authorities at the State Customs Committee of the Russian Federation.

²⁶Reflecting these rates the current regulations allow the free import of goods with a total value up to US\$1,000 by individuals and place a 30 percent tax on additional goods up to a limit of US\$10,000. See Government of the Russian Federation Resolution of July 18, 1996 No. 808. It appears that these taxes are infrequently collected.

economies, these price differentials could have substantial market impact.²⁷ It should also be noted that this effect is likely to be mitigated by the well documented failure of CIS industries to pay their taxes.

Porous borders

Russia has long borders with Peoples Republic of China, Kazakhstan, Mongolia, and Ukraine. Kazakhstan also has substantial borders with Mongolia and China. In addition, Russia is in a trade union with Belarus and Kazakhstan. Moreover, the European borders of the CIS states are large when taken as a whole. One can make a reasonable assumption that shuttle traders are also taking advantage of the porosity of these borders where ever there is opportunity to do so.²⁸

The Customs agencies in the CIS countries are all relatively young, having been grown out of much smaller agencies with very limited functions in the early part of this decade. Thus, it should not be surprising that even the guarded borders are more porous than would be expected if administered by an agency with more experience.

An additional factor that helps explain the very rapid growth in shuttle trade in the CIS states is the high level of economic dislocation, which occurred following the dissolution of the Soviet Union. Unemployment was high and many of the employed were either not being paid or were receiving pay at pay rates that had fallen far behind the rates of inflation. This created a large cadre of skilled and well-motivated workers that were willing and able to take up opportunities as they appeared.²⁹

²⁷For data on retail markups in the Soviet Union see *A Study of the Soviet Economy*, op. cit., Vol. 3, Table V.2.7., p. 53.

²⁸There is ample evidence that foreign trade, including shuttle trade, is substantially under covered throughout the CIS. Perhaps the most ambitious attempts to measure this under coverage have been undertaken by the Central Bank of Russia. The model used by the Bank of Russia to estimate unmeasured trade is provided in Appendix 2 of this paper.

²⁹Balance of payments missions have spoken to shuttle traders and to local citizens who buy goods from these traders on a number of occasions. These traders see themselves, and are seen by the general population, as providing an important service to the economies in which they operate. Casual estimates by Russian Federation officials indicate that millions of their citizens are involved in shuttle trade.

IV. TREATMENT OF SHUTTLE TRADE IN BALANCE OF PAYMENTS

This section of the paper examines the treatment of shuttle trade transactions in accordance with the recommendations of the *Balance of Payments Manual*, Fifth Edition, 1993 (*BPM5*).

A. Current Methodology

Treatment of the trade

From a methodological perspective, shuttle trade is defined as transactions involving the purchase of goods in a country by travelers (nonresidents) who then transport these goods back to their home country where they are to be sold. Shuttle trade covers also goods purchased by travelers in their home country for resale abroad, and goods purchased by travelers abroad in one country and sold abroad in a second country.³⁰ The intent of this travel is to engage in a business and to make a profit.

The appropriate treatment in the balance of payments is to record shuttle trade under goods. Shuttle trade is a business whose principal activities are the purchase of commercial goods in one country, the movement of these goods to a second country, and the sale of these goods in the second country. Shuttle trade is different from other trade businesses only in its mode of operations.

The criterion defining shuttle trade, and distinguishing it from other import/export businesses, is that goods are purchased from one country and resold in another by travelers for profit; the goods are not used by the travelers personally. Furthermore, shuttle trade is distinct from several classes of balance of payments transactions, which may appear to be similar but may be in fact substantially different. These classes of transactions relate to travel, merchanting, and “border trade” and are discussed below.

Shuttle trade vs. travel

Shuttle trade as defined above is distinct from the notion of travel as defined in *BPM5*. Travel is defined as goods and services acquired from an economy by travelers during visits of less than a year in that economy, where these goods and services are purchased by or on behalf of the traveler or provided, without quid pro quo, and where the goods and services are for the traveler’s own use or to give away. These goods are recorded under travel without regard to the size or value of the goods.³¹ The most common goods and services recorded under travel are: (a) lodging, food and beverages, entertainment, and transportation within the economy

³⁰ Shuttle trade could also be performed by border workers, although this does not appear to be a significant variant of this trade.

³¹ *BPM5*, paragraph 242 and 251.

visited, all of which are consumed in the providing economy, and (b) gifts, souvenirs and articles (irrespective of value) purchased for the traveler's own use and taken out of the economy visited. Some compilers argue that goods of large size, (such as cars) of high value (such as works of art) or goods that are purchased frequently and repeatedly by visitors from across the border should be recorded under general merchandise.³² In line with the *BPM5*, however, it remains appropriate to record these goods as travel, since they are purchased by travelers for their own use or to give away, and not for resale.

There is a gap between the *BPM5* recommendations that (1) goods included under travel be for the traveler's own use; and (2) goods moving across borders as part of a business operation with a profit making objective. Some goods are purchased by travelers to be sold at actual cost to friends and relatives. This could be interpreted as a form of "own use". Following such an interpretation, it appears reasonable to conclude that the fact that a traveler might obtain refunds for the costs of the goods he brought back for relatives or friends is not sufficient to classify the transaction under general merchandise, as long as the traveler does not seek to earn profit from that transaction. However, *BPM5* does not provide definitive guidance on this matter. This is an issue where the Committee could provide clarification and guidance to balance of payments compilers.

Shuttle trade vs. merchanting

Merchanting is defined in *BPM5* as a transaction involving the purchase of goods by a resident of an economy (compiling economy) from a nonresident and the subsequent resale of the goods to another nonresident; during the process, the goods do not enter or leave the compiling economy³³. The difference between the value of goods when acquired and the value when sold is recorded as the value of merchanting services provided. The transactor does not have to leave his country to conduct the merchanting activity and frequently does not take possession of the goods. It is not the value of the goods that is recorded in the balance of payments. It is the value of the services rendered to the nonresident buyer of the goods that is recorded in the economy of the provider of the service³⁴. In the case of the shuttle trade, the

³²See *The Recording of shuttle trade in Balance of Payments Statistics* Deutsche Bundesbank, BOPCOM97/1/7.

³³*BPM5*, paragraph 262.

³⁴Note that the entries for merchanting are not symmetric in balance of payments accounting, as there is no debit entry for merchanting in the country receiving the service. The counterpart debit entry will occur in the importing country by showing a higher value for goods debits than the goods credits shown by the exporting country. See the *Balance of Payments Textbook*, par. 192. Also note that if the goods are not resold in the same accounting period, an import is recorded by the country of the merchant in the first period and a negative import of the same value is recorded (continued...)

trader typically takes possession of the goods, and the goods originate or enter the country of residence of the trader.

There is one form of shuttle trade that may be classified as merchanting. This occurs where the trader buys goods in country A and sells them in country B neither of which are the trader's country of residence, and where the goods never enter the traders country of residence. While it is clear that these traders are much more intimately involved in the purchase and marketing of these goods than the class of traders typically involved in merchanting, this trade fully complies with the *BPM5* definition of merchanting. However, measurement of these merchanting credits is not likely, as neither the goods nor the trader will enter the trader's country of residence. Thus, the transactions will be invisible to balance of payments compilers in the trader's home country.

Shuttle trade vs. border trade

Border trade is a notion that is not separately recognized by the *BPM5*.³⁵ It involves goods acquired by visitors during very short journeys in a foreign country. It takes place simply because the prices of certain goods are cheaper across the border than in the home country. Persons working in Switzerland are known to establish their residence in France and some of those who work in Luxemburg elect to live in Belgium. Similarly, residents of Benin are known to cross the border every weekend to buy their groceries in Togo (other examples abound). The *BPM5* is clear in its recommendation that all goods acquired by travelers from the economy in which they are traveling and for their own use be included in travel.³⁶ Shuttle trade does not meet the "for their own use" criteria and thereby should be included under goods.

Shuttle trade and barter trade

Barter trade can also be undertaken in association with shuttle trade. However, goods carried by shuttle traders are typically bought and sold for cash, and barter is not a significant component of shuttle trade.³⁷

³⁴(...continued)

in the later period. See *BPM5* paragraphs 213 and 262.

³⁵The standard coding system adopted by the EUROSTAT, IMF and OECD does include a memorandum item 3.3, Goods purchased in the frontier area by travelers.

³⁶*BPM5*, par. 250. P. 65.

³⁷This view is confirmed by the responses provided in Appendix I.

Counterpart and related transactions

From the perspective of balance of payments methodology, all transactions involve two entries. Thus far, the discussion in this paper has been limited to one side of the transaction, the treatment of the goods involved in shuttle trade. The second side involves what was exchanged for these goods. The most likely possibilities are some form of liquid foreign or domestic financial instruments such as currency or bank drafts. In these cases the counterpart entry should be recorded in currency and deposits of other sectors. It is also possible that the revenue from the sale of goods is spent on goods that are then carried back to the country of origin of the good sold. In this case the counterpart entry ends up being goods.

Shuttle traders also engage in a number of transactions, other than the purchase or sale of goods, that are a consequence of their trading business. These transactions include freight and other transportation services, miscellaneous business services, and travel services. When these transactions occur in economies in which the trader is not a resident, they need to be recorded in the balance of payments. Examples of transactions included under miscellaneous business services are fees for the use of booths in a market and the earnings of the traders for the provision of retailing services to the local economy.³⁸ Transportation examples include freight, warehousing, and packaging services provided inside economies to nonresident shuttle traders, and travel services should be recorded for food, lodging and other personal purchases of the traders.

B. Current Measurement Practices

In its discussions with member countries which are significant exporters of goods through the mechanism of shuttle trade, the Fund has found that measurement of this trade is generally weak. There have been a number of attempts to estimate this trade through sampling and modeling. However, many countries do not include the results of these forms of measurement in their international trade statistics, and only a small number include such estimates in their balance of payments statistics.³⁹

Customs authorities

Historically, customs authorities have directed their focus on goods that attract taxation, usually limited to goods being imported, or goods that are subject to export restrictions (e.g.,

³⁸The Bank of Russia estimates the value of the retail services being provided by nonresident shuttle traders and includes the results in other business services in its balance of payments compilations. Finding of IMF's Statistics Department mission to the Russian Federation, February 1998.

³⁹Appendix I contains information on measurement practices under the heading "Method of Collection or Estimation."

national treasures and strategic technologies). As a result, customs authorities may have a more limited interest in addressing issues of measurement with respect to exports. In addition, customs organizations typically focus their activity on trade that is not associated with travel, as travelers' purchases are considered to represent a very small component of total trade.⁴⁰ Thus, shuttle trade exports have generally not been included in international trade statistics.⁴¹

Nevertheless, Customs authorities in a several of the CIS states have initiated programs to measure shuttle imports and exports. These estimates are typically based on simplified versions of the Single Administrative Document used throughout Europe by customs authorities. However, the large numbers of traders crossing borders, and, as already discussed, the administrative environment in which the trade is taking place, militates against full value recording of this trade.⁴²

Balance of Payments Compilers

Trade

The growth of shuttle trade from a below-the-statistical-horizon activity into a major form of trade appears to have been more directly addressed by balance of payments compilers in countries where this trade has become large in proportion to total trade. Thus the compilers in Turkey, Russia, and Kazakhstan have devoted substantial resources to generating estimates of shuttle trade in their balance of payments accounts. In Turkey, the authorities have sponsored formal surveys of shuttle export trade; this trade is largely directed towards the CIS countries.⁴³

⁴⁰This point is particularly appropriate with respect to industrial countries. However, it should be noted that a number of developing countries do monitor travelers for high value goods which attract high taxes if they are being imported.

⁴¹In order to confirm its views, the Balance of Payments Divisions of the Fund informally queried a number of Western European countries in 1995 to determine if goods exported by shuttle traders were included in their international trade statistics. The responses confirmed the view that shuttle trade goods were not included in the trade statistics. In addition staff visits to two of the largest shuttle trade exporters, Turkey and the United Arab Emirates, also confirmed this view.

⁴²Armenian and Russian customs are currently using these simplified forms, and the Georgian Authorities have indicated that they will initiate their use in 1998. The statistics generated from these forms for Russia produce trade numbers that are well below those used by Russian balance of payments compilers.

⁴³As a result of these surveys, Turkish compilers have entered coverage adjustments to export trade in their balance of payments compilations for 1996 and 1997 of US\$9.2 and US\$6.4 billion
(continued...)

The Kazakh authorities have employed data models based on the number of traders and estimates of the typical value of goods carried on each trip.⁴⁴ Perhaps the most ambitious attempt to measure shuttle trade has been set up by the Central Bank of Russia. The Central Bank has developed a comprehensive model that looks at trade in selected markets and derives the levels of trade required to service these markets.⁴⁵

In all three of the examples cited above the authorities have instituted systems to measure trade that is substantially under recorded by the local customs authorities. Their methods introduce sampling and judgmental errors into the compilation process. Nevertheless, the data produced by these endeavors appear to be more realistic than available alternatives.

V. CONCLUSIONS AND RECOMMENDATIONS

In this section we will begin by setting out some specific recommendations with respect to the treatment of shuttle trade by national authorities. This discussion will then be followed by addressing some adaptations to current balance of payments methodology that may be worthy of consideration.

A. Treatment of Shuttle Trade in National Statistics

Shuttle trade is a business. The principal activities of the business are the importing and sale of goods in the target country. The balance of payments entries for the transactions of these businesses are merchandise exports/imports transactions and most typically, the

⁴³(...continued)

respectively. These adjustments are reflected in the Turkish balance of payments data published in recent issues of *International Financial Statistics*.

⁴⁴These data models produced the following results as reported by the Kazakh authorities.

	Number of Trips (000)	Per Capita Expenditure (US\$)	Total Value (US\$ mill.)
CIS States			
Imports	400	3,000	1,204
Exports	130	3,000	387
Rest of World			
Imports	248	8,000	1,981

⁴⁵This model was described in the paper presented at the 1997 meeting of the Balance of Committee by the Central Bank of the Russian Federation (BOPCOM97/1/6). A complete statement of this model is provided in Appendix 2 of this paper.

acquisition/disposition of currency and deposits by other sector transactions. All of this has been discussed in this paper. The issues that remain are: how are these transactions to be measured, how long lived is the shuttle trade market structure likely to persist, and what institutional changes will bring it to an end.

Measurement

The means of measurement that most readily comes to mind is to account for the goods being imported/exported at the point of entry/exit from the measuring economy. That is, the transactions should be measured by customs authorities in the importing/exporting countries. However, present experience demonstrates that customs authorities are unable and/or are unwilling to perform this measurement. This appears to be true for both the exporting and importing economies.

An alternative means of measurement is for balance of payments compilers to construct data models to estimate this trade and estimate the parameters of these models by sampling techniques.⁴⁶ This approach is being pursued by a number of countries. It requires substantial investment in resources by the compiling units and sophisticated capabilities in the use of statistical sampling if such estimates are to become reliable.⁴⁷ Nevertheless, in the absence of customs data, it appears that the construction of data models is the next best alternative for countries where shuttle trade accounts for substantial portions of total trade. A third choice taken by some compilers is to leave shuttle trade unmeasured. This choice is only reasonable if the level of such trade in the compiling economy is sufficiently small that the expense of measurement overwhelms the value obtained by measurement.

The inclusion of the merchandise component of shuttle trade transactions in the balance of payments statistics of a country may give rise to increases or decreases in the net errors and omissions numbers, depending upon the extent to which the counterparts to the merchandise transactions are already included in the compilations. Compilers need to address the likelihood that the counterpart entries to the merchandise entries are or are not recorded in the balance of payments. This itself is a difficult undertaking. However, if a reasonable assumption can be made that the counterpart entries are not being included, and that the shuttle transactions are large, then a program for improving the measurement of the accounts where the counterpart entries are expected to occur should be considered. The alternative is to have the counterpart

⁴⁶A second alternative for measuring this trade that, in theory, would produce reasonable results would be to use the administrative data generated by the value added tax systems of the countries involved. However, this has proven to be difficult in Western Europe where tax administrations are well developed and tax compliance is high. Both of these criteria are not met in many of the countries where shuttle trade is most active.

⁴⁷While both the Russian and Kazakh authorities are making substantial investments in the development of their data models, some of the parameters of these models are judgmental.

entries included in net errors and omissions. A similar point may be made with respect to bilateral asymmetries that arise, principally from the underrecording of exports by the partner countries of shuttle importers. While countries that are shuttle importers have devoted significant attention to estimation of shuttle imports, it appears to be the case that countries that are shuttle exporters have paid less attention to the measurement of these exports. This response may be explained in part by the reduced importance of this trade in the economies of the exporters.

Persistence

The paper has addressed what conditions lead to the rapid growth of shuttle trade when the formally centrally planned economies of Europe and Asia entered a period of transformation toward market economies. However, some of these conditions, such as the satisfaction of pent up demand, the availability of retail space, and the development of formal import businesses have lost much of their relevance. We have also seen this form of trade decline as several Central and East European economies have approached the completion of this transformation. Nevertheless, shuttle trade appears to persist to some degree in most of these economies (this is particularly true for automobiles).⁴⁸

The most immediate explanation for the persistence of shuttle trade appears to be the tax advantage accorded to such trade at the point of entry of these goods. In the absence of this preferential treatment, import wholesalers would have a substantial cost advantage over shuttle traders for most goods, and the latter would likely be driven out of business.

Nevertheless, some forms of shuttle trade may persist even if the tax preference incentive disappears. One example of shuttle trade that may continue to exist for a number of years is the movement of used automobiles from Western Europe to the East. This is likely to occur as long as the price/preference structure for these vehicles is lower in the West than in the East.

A third explanation for the continuing persistence of shuttle trade is associated with the high levels of unemployment or underemployment in the economies involved in this trade. Participants continue to be willing to accept the low implicit wages of shuttle trade when there are no alternative employment opportunities.

B. Post *BPM5* Considerations

While this paper has focused on shuttle trade that is associated with a business, some transactions of individual travelers are not business related and are clearly not incidental to travel transactions. For the most part, including these transactions in travel does not seriously distort the statistics. However, if this trade involves large numbers of travelers and/or includes

⁴⁸Appendix I also provides a country perspective on the issue of persistence under the heading “Future of Shuttle Trade in the country.”

big ticket items such as automobiles, the distortions may be significant. It also appears that travel for the purpose of purchasing goods may be more widespread than was recognized when the recommendations of the fifth edition of the *Balance of Payments Manual* were being considered. Thus, there may be sufficient reason to place the question of treatment of goods purchased by travelers that are not incidental to the travel on the agenda for discussion by the balance of payments compilers.⁴⁹

⁴⁹The paper “The Recording of Shuttle Trade in Balance of Payments Statistics” op.cit. provides an extended discussion of some of the issues involved in the recording of goods purchased by travelers.

Russia: Methodology for Estimating Unrecorded Imports of Consumer Goods⁵⁰

This methodology begins by looking at the total turnover in a selected group of formal and informal markets⁵¹ which are separable in the Russian economy and thus may be reasonably measured without encountering major statistical difficulties. These markets include selected formal market outlets for consumer goods⁵² and the informal markets (shuttle trader markets) for clothing, mixed consumer products, and foodstuffs. For readers that are unacquainted with the institutional setting in Russia, the formal market outlets are very much like department and speciality retail stores in industrial economies. The informal markets are somewhat like flea markets or farmers markets in industrial economies, only on a much grander scale. The locations of the informal markets are frequently outdoors and the largest in Moscow operates only on weekends. However, these markets do move into indoor space where they can be accommodated and many operate all week. These markets carry a much larger range of consumer goods than found in similar markets in industrial economies.⁵³

The methodology for estimating unreported trade starts with the total turnover in the two types of markets described above. Thus:

$$(1) \quad T = TF + TI$$

where: T = total turnover in the markets included in the analysis
TF = the formal sector portion of these goods
TI = the informal sector portion of these goods

⁵⁰Source: Central Bank of the Russian Federation.

⁵¹This appendix uses the terms formal and informal markets to describe the types of selling units, and the terms normal and shadow portions of trade in these markets to describe transactions that are open and legal and those that are in some ways illicit.

⁵²The markets cover 62 commodity groups included in a quarterly survey done by the State Committee on Statistics that focuses on generating estimates of retail turnover.

⁵³The mission visited one such market where the range of goods included dish pans, underwear, blue jeans, mens suits, shoes, ladies evening gowns, wedding dresses, full length mink coats, and various foodstuffs, with several thousand stalls each specializing in a narrow range of these products. The market boundaries were well defined, and customers were required to pay a two rouble fee to enter and tens of thousands of customers were present. The market consisted largely of retail vendors, however there were also approximately 50 wholesale vendors present selling out of large trucks. Also present were a number of vendors servicing the retailers with products they needed to set up their shops. Food establishments were also scattered throughout the market site. All together, the market was very well organized.

These two sectors exhibit different behaviors. Thus, while there are similarities to the methodologies for estimating their behaviors, the differences between the two markets require separate treatment.

ESTIMATION OF IMPORTS SERVING FORMAL MARKETS

We begin by breaking the formal market into goods imported from the Commonwealth of Independent States (CIS) countries and from the rest of the world.⁵⁴In addition we separate out the normal portion of the market, including only the shadow portion in the analysis. The implicit assumption is that all unrecorded imports are sold through the shadow portion of the formal market outlets. This may be represented as follows:

$$\begin{aligned} (2) \quad \text{UMF_CIS} &= \text{par1} \cdot \text{par2} \cdot \text{TF} \\ (3) \quad \text{UMF_ROW} &= \text{par1} \cdot \text{Par3} \cdot \text{TF} \end{aligned}$$

where: UMF_CIS = the shadow market turnover of goods from the CIS⁵⁵
 UMF_ROW = the shadow market turnover of goods from the ROW
 par1 = the proportion of goods in these markets attributable to shadow transactions
 par2 = the proportion of the shadow transactions attributable to goods from the CIS
 par3 = the proportion of the shadow transactions attributable to goods from the ROW⁵⁶

The values obtained above may then be converted from final market prices to f.o.b. valuation in US dollars to give us an estimate of the unrecorded imports f.o.b. from the CIS and the rest-of-world serving the formal markets as follows:

$$\begin{aligned} (4) \quad \text{UMF_CIS\$} &= \text{UMF_CIS} / (\text{par4} \cdot \text{EX}) \\ (5) \quad \text{UMF_ROW\$} &= \text{UMF_ROW_TP} / (\text{par5} \cdot \text{EX}) \end{aligned}$$

where: UMF_CIS\$ = f.o.b. imports in US dollars from the CIS to the shadow portion of the formal sector
 UMF_ROW\$ = f.o.b. imports in US dollars from the ROW the shadow portion of the formal sector
 EX = the period average RUR / USD exchange rate
 par4 = the value added ratio between f.o.b. and final market value for CIS goods
 par5 = the value added ratio between f.o.b. and final market value for ROW goods

⁵⁴ ROW represents all countries except the CIS countries and includes the Baltic states.

⁵⁵ Variables that do not end in the dollar sign are denominated in Russian Roubles.

⁵⁶ The proportions par2 and par3 together with the proportion of the shadow transactions attributable to goods from Russia must add to one.

ESTIMATION OF IMPORTS SERVING INFORMAL MARKETS

For the informal markets we make the assumption that all imports are unrecorded and begin by separating out the goods produced in Russia from those imported as follows:⁵⁷

$$(6) \quad TI_{mkt,t} = (1 / par6) \cdot TUMI_{mkt,t}$$

where: $TI_{mkt,t}$ = turnover in the informal markets at market prices in roubles
 $TUMI_{mkt,t}$ = turnover of unrecorded imports in the informal markets at market prices in roubles
 $par6$ = proportion of imported goods in these markets

These imports may then be divided into those that come from CIS countries, those that come from the rest-of-world and are directly sold in these markets, and those that come from the rest-of-world and undergo additional processing in Russia in the previous period before being sold in this market as follows:

$$(7) \quad TUMI_{mkt,t} = TUMI_{DIR_{mkt,t}} + TUMI_{PRC_{mkt,t}} + TUMI_{CIS_{mkt,t}}$$

where: $TUMI_{CIS_{mkt,t}}$ = turnover attributable to goods from the CIS
 $TUMI_{DIR_{mkt,t}}$ = turnover attributable to goods directly imported from the ROW
 $TUMI_{PRC_{mkt,t}}$ = turnover attributable to processed goods from the ROW

Now we may take each term on the right hand side of the above equation and work back to imports f.o.b. As a first step we convert to the cost of the goods to the shuttle trader which in this analysis are called f.o.b. prices.⁵⁸

Starting with $TUMI_{DIR_{mkt,t}}$ we can define it in terms of turnover at f.o.b. values as follows:

$$(8) \quad TUMI_{DIR_{mkt,t}} = par7 \cdot TUMI_{DIR_{fob,t}}$$

where: $TUMI_{DIR_{fob,t}}$ = turnover attributable to goods directly imported from the ROW at f.o.b. prices
 $par7$ = the average markup of ROW goods from cost in the country of acquisition to final market price

⁵⁷ In this presentation we will include notation to identify the valuation of the variables (e.g., mkt for final retail market value and fob for the value of the good in the final market in the exporting country) and the time period (t) which the variables reference.

⁵⁸ These prices may vary somewhat from true f.o.b. at the border as they may not include packing and shipping to the border.

Some of the goods in the larger central city markets are purchased by dealers, transported to smaller towns and cities, and resold. Thus, total turnover for all informal markets is larger than the total imports supplied to these markets. Equation (9) incorporates this effect.

$$(9) \quad TUMI_DIR_{fob_t} = (1 / par8) \cdot UMI_DIR_{fob_t}$$

where: $UMI_DIR_{fob_t}$ = unrecorded imports supplied directly to the informal markets
 $par8$ = the proportion of goods sold in informal markets that are not resold in other informal markets

The goods supplied to the informal markets can be defined in terms of total unrecorded imports to the informal markets with the goods to be processed removed.

$$(10) \quad UMI_DIR_{fob_t} = par9 \cdot UMI_ROW_{fob_t}$$

where: $UMI_ROW_{fob_t}$ = all goods imported in period t from the ROW that are destined for the informal markets in roubles
 $par9$ = proportion of goods provided directly to the market

As the last step in this process we can define rouble imports in terms of dollar imports as follows:

$$(11) \quad UMI_ROW_{fob_t} = ER_t \cdot UMI_ROW\$_{fob_t}$$

where: $UMI_ROW\$_{fob_t}$ = unrecorded ROW imports in US dollars
 ER_t = average rouble / dollar exchange rate in period t

With a few changes the sequence defined in equations (8) through (11) can be repeated for the second term in equation (7) as follows:

$$(12) \quad TUMI_PRC_{mkt_t} = par7 \cdot par10 \cdot TUMI_PRC_{fob_t}$$

$$(13) \quad TUMI_PRC_{fob_t} = (1 - par9) \cdot UMI_ROW_{fob_t-1}$$

$$(14) \quad UMI_ROW_{fob_t-1} = ER_{t-1} \cdot UMI_ROW\$_{fob_t-1}$$

where: $TUMI_PRC_{fob_t-1}$ = turnover attributable to processed goods imported from the ROW at f.o.b. prices in period t-1
 $par10$ = the average value added ratio for the processing

$UMI_ROW_{fob_t-1}$ = all processed goods imported in period t-1 that are supplied to the informal markets in period t

$UMI_ROW\$_{fob_t-1}$ = unrecorded imports in US dollars in period t-1 to be processed

The changes introduced in these equations include the addition of a parameter to account for the value added by processing in equation (12), the accounting for goods that are processed by taking one minus the proportion of goods that are not processed in equation (13), and the introduction of a one period lag for the right hand side of equation (13) and to both sides of equation (14).

The third term in equation may then be addressed as follows:

$$(15) \quad TUMI_CIS_{mkt,t} = par11 \cdot UMI_CIS_{fob,t}$$

$$(16) \quad UMI_CIS_{fob,t} = UMI_CIS_{fob,t} \cdot ER_t$$

where: $UMI_CIS_{fob,t}$ = turnover attributable to goods directly imported from the CIS at f.o.b. prices
 $par11$ = the average markup of CIS goods from cost in the country of acquisition to final market price
 $UMI_CIS_{fob,t}$ = unrecorded CIS imports in US dollars

We may now substitute equations (7) through (16) into equation (6) to obtain the following:

$$(17) \quad TI_{mkt,t} = (1/par6) [par7 (1/par8) par9 \cdot ER_t \cdot UMI_ROW_{fob,t} + par7 \cdot par10 (1 - par9) ER_{t-1} \cdot UMI_ROW_{fob,t-1} + par11 \cdot ER_t \cdot UMI_CIS_{fob,t}]$$

There are only two unknowns in equation 17. These are the unrecorded imports from the ROW and CIS for the current period (i.e., $UMI_ROW_{fob,t}$ and $UMI_CIS_{fob,t}$). Unrecorded imports from the ROW for the previous period were identified in that period and turnover in the informal markets is directly measured by GKS. However, the proportion of goods from the ROW and CIS can be measured as follows:

$$(18) \quad UMI_CIS_{fob,t} = (1/par8) par12 \cdot UMI_ROW_{fob,t}$$

where: $par12$ = the ratio of CIS to ROW goods imported to serve the informal markets

We can now substitute equation 18 into equation 17 to obtain only one unknown (i.e., $UMI_ROW_{fob,t}$) and solve for it as follows:

$$(19) \quad UMI_ROW_{fob,t} = [TI_{mkt,t} - (1/par6) par7 \cdot par10 (1 - par9) ER_{t-1} \cdot UMI_ROW_{fob,t-1}] / [(par7 \cdot Par9 + par11 \cdot par12) (1/par6)(1/par8)]$$

We may now use equation (18) to obtain the unrecorded imports from the CIS.

CALCULATION OF ADJUSTMENTS FOR INCLUSION IN THE BALANCE OF PAYMENTS

Total imports f.o.b. in USD from CIS and ROW countries serving the two markets we have described may now be calculated as the sum of the two components we have derived for each market as follows:

$$\begin{aligned} (21) \quad UM_CIS\$ &= UMF_CIS\$ + UMI_CIS\$_{fob,t} \\ (22) \quad UM_ROW\$ &= UMF_ROW\$ + UMI_ROW\$_{fob,t} \end{aligned}$$

where: $UM_CIS\$$ = total imports from the CIS in the current period valued at f.o.b. in US dollars
 $UM_ROW\$$ = total imports from the ROW in the current period valued at f.o.b. in US dollars

These results are then included in the Central Bank of Russia compilation of balance of payments trade imports under the heading of coverage adjustments, other.

The parameters in this model are themselves subject to change over time. Table 1 provides the values of these parameters that were used for the four quarters of 1996.

Table 1: The values assigned to the parameters in the CBR UI-Model for unrecorded trade for 1996

Parameter	Value in 1996
par1	0.14
par2	0.15
par3	0.37
par4	1.3
par5	1.8
par6	0.8
par7	2.00
par8	0.8
par9	0.85
par10	1.4
par11	1.35
par12	0.2