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PRIVATE FOREIGN EXCHANGE MARKETS IN EASTERN EUROPE AND THE USSR

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Private Foreign Exchange Markets In Eastern Europe and the USSR

by

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Private Foreign Exchange Markets in Eastern Europe and the USSR[1]

1. Introduction

Recently it has become increasingly evident that in order to understand the functioning of Soviet-type economies both at the macroeconomic and microeconomic level and to find policies that could be used to improve their performance, one has to understand the role of the "second economy" and black markets that exist in these economies. One of the most important black markets in Soviet-type economies is the black market in hard currencies and in hard-currency coupons which are used in special stores that offer consumer goods of superior quality and typically not available elsewhere. On the demand side, the black market exchange rate of a U.S. dollar and other hard currencies will reflect, among other factors, the relative availability of particular consumer goods in the regular domestic market and in hard-currency stores, consumers' perception of domestic open and hidden inflation relative to the open inflation in the West, the degree of domestic political stability, and changes in regulations with respect to travel of domestic residents to the West. In addition, on the supply side, government policies with respect to Western tourism (visa regulations, availability of tourist facilities, exchange rates for tourists) and general economic situation in the West will influence the black market exchange rate as well.

The main source of supply of hard currency to the black market are foreign tourists and domestic recipients of cash gifts and handpayments from friends and relatives in the West. They sell hard currency on the black market in order to obtain the best possible exchange rate and maximize the purchasing power of their hard currency. Hard currency is demanded on the black market mostly by resident nationals for four main purposes. These include: (i) its use in hard-currency stores (perhaps after having been exchanged for hard-currency coupons), (ii) to supplement the meager allocation of foreign exchange to Eastern tourists travelling to the West[2], (iii) to be used as a store of value in uncertain times (political and economic crises, expectations of currency reform), and finally (iv) to be used as means of payment in the entire second economy (transactional demand).

The Eastern European governments need not be too concerned over its first use since the black market hard currency will ultimately end up in the hands of the state anyway. Since hoarding probably does not take place on a large scale and is not likely to be a permanent problem in these countries, it is the second and the fourth use of hard currency obtained on the black market that should be of concern to the governments. The second use contributes to the country's deficit in the balance of payments with the West by lowering the government export receipts for tourist services and by increasing imports of goods and tourist services by domestic residents travelling to the West. The fourth use is potentially perhaps the most damaging from the viewpoint of Eastern European governments. It can partially undermine government control over the supply of money (as it happened in East Germany with the West German mark and in Poland with the dollar), seriously undermine work incentives in the official (first) economy, stimulate rapid growth of the second economy, undermine government control over the distribution of income, bring inflationary pressures to the surface and increase the population's awareness of inflation (repressed or hidden inflation in the first economy becomes an open inflation in the second economy), etc.[3]

This paper represents an initial effort to look at some aspects of black market in hard currencies in six Eastern European countries and in the USSR. Its main effort is to look primarily at this market in its own right rather than to analyze it in a broader macroeconomic context. The paper is divided into seven sections. The second section attempts to explain the behavior of government in the foreign exchange market by presenting a model of behaviour of a monopsonistic buyer of foreign exchange. The third section attempts to classify the possible participants in foreign exchange market (domestic legal market, domestic black market, external black market in non-convertible Eastern currencies). It also indirectly classifies different types of legal and illegal foreign exchange transactions that can take place. The fourth section studies legal restrictions on private foreign exchange transactions and ownership of foreign exchange in Eastern Europe and in the USSR. The fifth section looks at black market exchange rates of a U.S. dollar and briefly analyzes their main determinants. In the sixth section, the author makes an attempt to construct a crude estimate of the volume of black market hard-currency transactions in different countries. Finally, the seventh section presents several important conclusions arrived at in previous sections. A five-table appendix presents information on black market and tourist exchange rates of a U.S. dollar in the seven countries studied (Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Romania, USSR) during the period 1950 - 1977.

2. A Model of Behavior of a Monopsonistic Buyer of Foreign Exchange

The foreign exchange market in Eastern Europe and in the USSR is fundamentally different from that in capitalist market economies. The state (State Bank) has both a monopsonistic position as a buyer of foreign exchange and a monopoly in its sale for travel purposes and small remittances abroad. No private individual is allowed either to sell or to purchase foreign exchange from another private individual. This law applies to all individuals present on the territory of any Eastern European country or on the USSR territory, i.e., it applies to resident nationals, resident foreign nationals, and to both non-resident nationals or non-resident foreign nationals when present in these countries.[4]

The aim of the model presented below is to show what a typical Eastern State Bank could _possibly_ do in order to exploit its monopsonistic position to the fullest possible extent. It should not necessarily be viewed as a realistic description of what the Eastern State Banks actually do, although several elements of the model are based on the observed behavior of these institutions.

To begin with, if it desired to maximize the profitability of export of tourist services in terms of the domestic currency, the State Bank could utilize its monopsonistic position and purchase a lower quantity of foreign exchange at a lower exchange rate than would be the case when a large number of foreign exchange dealers compete in the marketplace. This is illustrated in Figure 1 below. Under competitive conditions, foreign exchange dealers would purchase the amount of foreign exchange Q_{comp} at an exchange rate E_{comp}. A monopsonistic buyer of foreign exchange will only purchase the amount Q_{mon} where the marginal cost of foreign exchange equals the demand for foreign exchange. That amount of foreign exchange can be bought at an exchange rate E_{mon}, which is less than the competitive exchange rate E_{comp}.[5] However, the monopsonistic buyer of foreign exchange would do even better if it could resort to price (exchange rate) discrimination.

There are two necessary conditions for successful exchange rate discrimination: (i) the presence of a single buyer of foreign exchange, (ii) ability to segment the market and prevent resale of domestic currency in exchange for foreign currency by those who obtained it at a relatively favorable exchange rate to those who would have to buy it at a relatively unfavorable exchange rate. The former condition can be satisfied if a legal monopsony is created and a threat of serious legal penalties is used as a deterrent to competition from private entrepreneurs and consumers who desire to obtain foreign exchange. The latter condition is satisfied by creating multiple foreign exchange markets, each with a different exchange rate, and by constructing legal and other barriers to prevent resale. Figure 2 below presents a simple model of behavior of a price-discriminating monopsonistic buyer of foreign exchange.

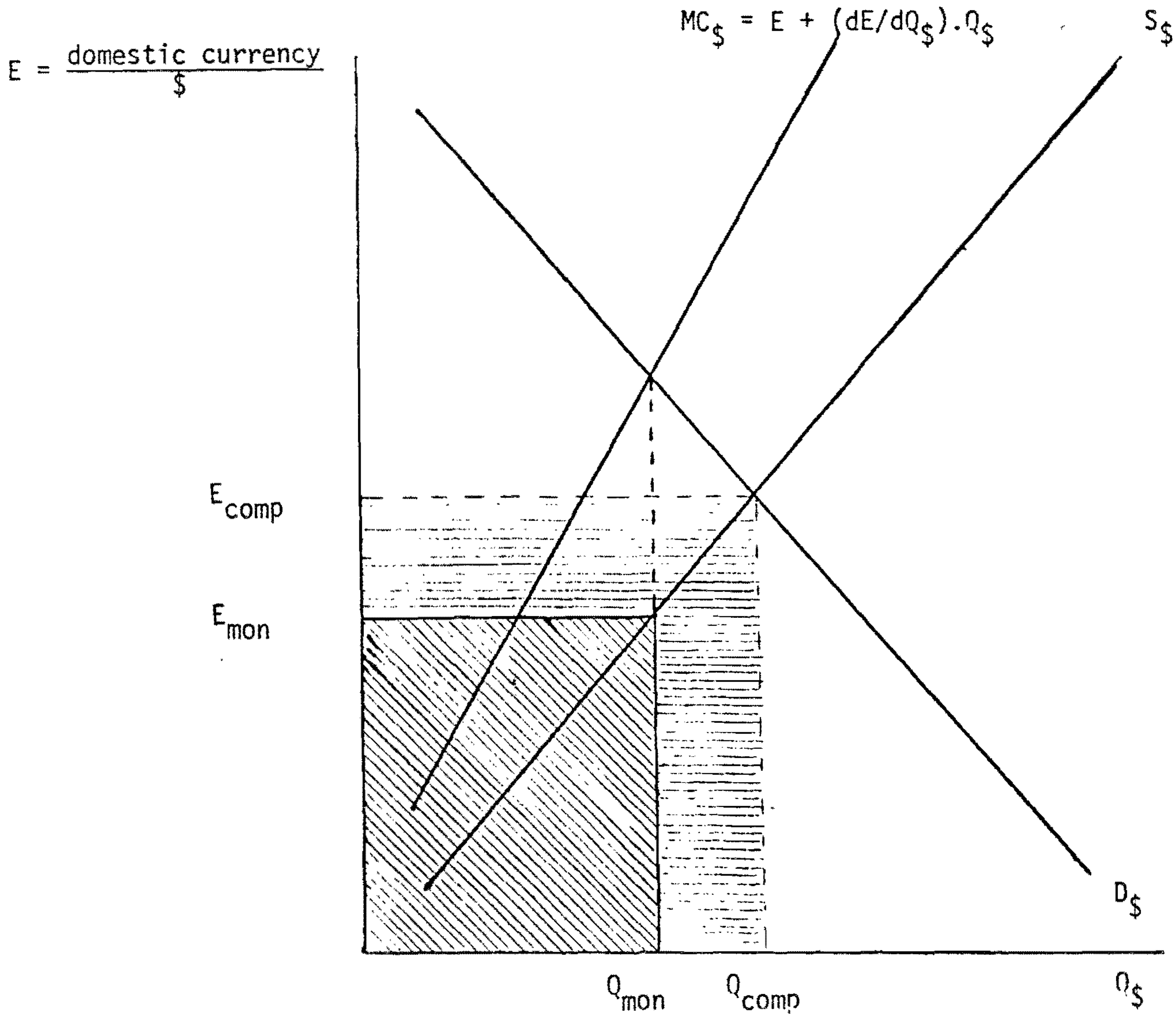


Figure 1. Behavior of a Monopsonistic Buyer of Foreign Exchange

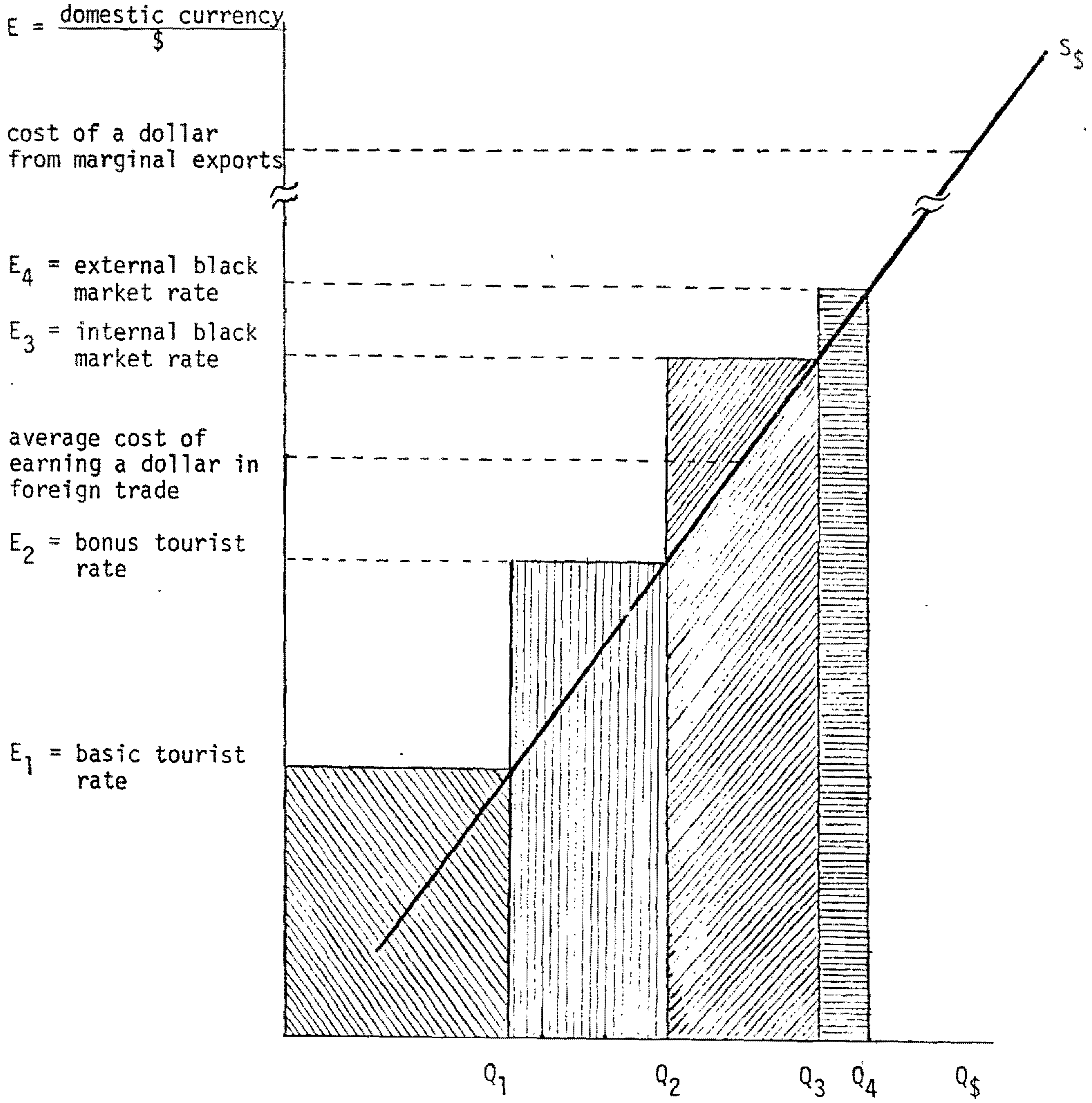


Figure 2. Behavior of a Price-Dicriminating Monopsonistic Buyer of Foreign Exchange

The model assumes that the State Bank first creates a basic tourist exchange rate E_1 and acquires the quantity of foreign exchange Q_1. The basic tourist exchange rate is relatively unfavorable to a tourist (although it may be set on the basis of a comparison of purchasing power of the domestic currency and a key foreign currency for a particular basket of goods consumed by tourists). It is typically combined with a requirement of a minimum exchange of x dollars (or their equivalent in other hard currencies) per day.[6]

Next, a bonus tourist rate E_2 is introduced for foreign exchange offered over and above the minimum required exchange per day. The bonus tourist rate can be expressed as a percentage premium over the basic tourist rate or the right to acquire hard-currency coupons for use in hard-currency stores which offer superior consumer goods at relatively attractive prices to Westerners.[7] Typically the bonus tourist exchange rate would still be set well below the average cost of a unit of foreign exchange in foreign trade and below the black market exchange rate. Thus far the State Bank purchased amount Q_2 of foreign exchange at an average cost $\frac{E_1 \cdot Q_1 + E_2 \cdot (Q_2 - Q_1)}{Q_2}$ and saved the amount $(E_2 - E_1) \cdot Q_1$ compared to what it would have paid under competitive conditions.

Naturally, it would be tempting for the State Bank to create additional classes of sellers of foreign exchange who will be offered still higher exchange rates and purchase more foreign exchange since the cost of a unit of foreign exchange earned for marginal exports is typically very high (three to five times the average cost of foreign exchange in foreign trade) and exceeds the black market exchange rate. However, there may be no need to do so. Since domestic residents demand foreign exchange for quite special purposes which justify paying a very high price for it, a black market in foreign exchange will inevitably develop. It is also likely that almost no amount of restrictions and serious potential penalties will completely discourage private domestic buyers and (mostly) foreign sellers of foreign exchange from concluding mutually advantageous transactions. Given the inevitability of the existence of the black market, an interesting possibility arises that the State Bank could participate in it and use it to its own advantage as a means of purchasing additional foreign exchange from those foreign tourists who have a high price (exchange rate) elasticity of demand for travel and who are not particularly risk-averse. In addition, one of the most efficient ways of combatting the genuine black market is by government participation in it and by "open" competition for the black market hard currency.

Figure 2 presented above suggests that an imaginative management of the State Bank could then take the following two steps. With the assistance of appropriate authorities (the Ministry of Interior, the courts, the press), it could be highly publicized that private foreign exchange transactions are illegal and subject to serious penalties. This would insure that the risk-averse foreign tourists with the relatively low price (exchange rate) elasticity of demand for travel will in fact exchange their money at exchange rates E_1 and E_2. On the other hand, the risk-seeking foreign tourists with the relatively high price elasticity of demand for travel will sell some of their money to black market dealers under most circumstances. Since they offer their foreign exchange at a relatively attractive rate E_3 (still well below the marginal cost of a unit of foreign exchange in foreign trade), the State Bank (or the Ministry of Interior) could authorize some of its employees or agents to act on the street as if they were genuine black marketeers and purchase the amount (Q_3-Q_2) of foreign exchange (or rather a portion of this amount if it is assumed that some genuine black market foreign exchange dealers are still able to continue to operate) at an internal black market exchange rate E_3.

Finally, some risk-seeking foreign tourists who desire to earn an additional risk premium from illegally imported domestic currency (previously <u>illegally</u> exported) will purchase this currency abroad at an external black market rate E_4. In order to satisfy this demand for domestic currency abroad, the State Bank or agents acting on its behalf could export some domestic currency abroad, even though this would be in direct violation of the country's own banking laws. As a result, the total amount of foreign exchange bought by the State Bank could be as much as Q_4, and its total cost would be only $Q_1.E_1 + (Q_2-Q_1).E_2 + (Q_3-Q_2).E_3 + + (Q_4-Q_3).E_4$ compared to $Q_4.E_4$ under competitive conditions. This successful performance could be achieved thanks to the State

Bank's monopsonistic position in the foreign exchange market and a use of a proper mix of legal restrictions (not enforced) and threats of penalties (largely phony).

3. Possible Participants in the Foreign Exchange Market

Table 1 below presents an exhaustive list of possible participants in legal and illegal foreign exchange markets. With the exception of Hungary and the USSR, in which resident nationals are not allowed to receive foreign exchange in cash form, any seller of foreign exchange is a legal participant in the domestic foreign exchange market so long as he or she sells it to an authorized state agency (typically the State Bank). Naturally, the State Bank itself can legally sell foreign exchange to anybody who has proved the right to receive it. On the buying side, the only legal participants in the foreign exchange market are the authorized state agencies. Any sale or purchase of foreign exchange involving non-resident or resident foreign nationals and non-resident or resident nationals that takes place on the territory of the country is illegal and classified as a black market activity.

Four groups of potential sellers of foreign exchange on the black market are identified below.[8] Non-resident and resident foreign nationals typically sell hard currency illegally in order to increase the purchasing power of their foreign cash. Professional speculators and smugglers may be involved in the arbitrage between the domestic black market in hard currencies and the non-convertible Eastern currency market abroad, or alternatively they may be selling hard currency in order to acquire domestic currency which is in turn used for purchases of goods to be

Table 1. Possible Participants in Domestic Legal and Illegal Foreign Exchange Markets *

Sellers of Foreign Exchange	Buyers of Foreign Exchange
(i) Non-Resident Foreign Nationals (a) tourists (b) businessmen (c) professional speculators and smugglers	(i) State Agencies (a) State Bank (b) other banks (c) other authorized government agencies
(ii) Resident Foreign Nationals (a) diplomats (b) foreign students (c) permanent business representatives and foreign construction workers (d) retired former nationals resident in the country who receive pensions from abroad (e) foreign spouses of resident nationals (f) foreign military personnel	(ii) Private Resident Entrepreneurs (a) private traders authorized to buy foreign exchange on behalf of government agencies (possibly employees of State Bank or agents of Ministry of Interior) (b) genuine private traders
(iii) Non-Resident Nationals (a) country's diplomats (b) foreign-trade representatives (c) technical and construction workers stationed abroad (d) spouses of non-resident foreign nationals (legal emigrants)	(iii) Other Resident Nationals (a) occasional travellers to the West (tourists) (b) consumers who desire to shop in hard-currency stores (c) hoarders and "investors" (d) users of hard currency as means of payment for scarce goods, services and bribes in the second economy (e) emigrants and individuals contemplating defection who need transferable or convertible assets
(iv) Resident Nationals (a) occasional travellers to the West (artists, government employees, sportsmen, etc.) (b) recipients of hard-currency coupons (c) recipients of hard-currency handpayments and direct gifts (d) individuals who earned hard currency from private sale of art, antiques, etc. to foreign nationals (e) speculators and other recipients of hard currency (hotel and travel agency employees, waiters, taxi drivers, prostitutes, recipients of bribes from foreign nationals)	(iv) Foreign Nationals (a) diplomats (b) owners of domestic-currency accounts (foreign writers, musicians, etc.) (c) foreign workers (d) foreign military personnel (e) professional speculators and smugglers
(v) State Bank	

* Inclusive of trade in hard-currency coupons used for purchases in hard-currency stores.

smuggled out of the country (art, antiques, stamps, precious metals and stones, coins, jewelry, etc.). Foreign military personnel -- typically Soviet military officers stationed in Eastern Europe -- have reportedly been active in arbitrage among black hard-currency markets in Czechoslovakia, East Germany, Poland, Hungary, and the USSR. Non-resident nationals, the third potential group of black market participants, are those with legal earnings of hard currency abroad. Among resident nationals, two groups of participants in the black market require more detailed explanation. Recipients of hard-currency coupons (vouchers) are individuals who receive hard currency in a check or draft form as a gift from their friends or relatives abroad and exchange it for hard-currency coupons usable for purchases in hard-currency stores. They frequently sell these coupons, which is illegal in all countries except in Czechoslovakia but viewed as a minor offense (and therefore also less risky) compared to selling hard currency in a cash form, in order to increase the purchasing power of their gifts in terms of domestic currency. Recipients of hard-currency handpayments and direct gifts are those who actually receive hard currency in a cash form and have an option to exchange it for hard-currency coupons or sell it directly on the black market.

Among illegal or nominally illegal buyers of hard currencies on the black market the most interesting group are private resident entrepreneurs. Two types of private entrepreneurs are distinguished: (i) private traders authorized to buy hard currencies on the black market on behalf of government agencies, (ii) genuine private traders. The former group of entrepreneurs may in fact be employees of the State Bank or agents of the Ministry of Interior, or "contract" dealers who resell all purchased hard currencies to the State Bank and earn a commission and an immunity from prosecution.[9] Their existence requires proof which, in the absence of hard positive evidence, is put forward as a plausible deduction.

As was pointed out in section 2 of this paper, the model of behavior of a price-discriminating monopsonistic buyer of foreign exchange suggests that the government's participation in the black market might be perfectly rational and profitable. In addition, it is an efficient way of combatting the genuine black marketeers by open competition for the black market dollar and other hard currencies. Any Western traveller to Eastern Europe or the USSR with open eyes should be struck by the degree of openness of operation and visibility of black marketeers. Western tourists are approached in front of major banks, exchange offices, travel agencies, hotels with an international clientele, airports and train stations, on the highways, near major historical monuments, and at major sightseeing locations.[10] Offers to exchange hard currency at a multiple of the basic tourist exchange rate are made quite openly, occasionally even in the vicinity of policemen or potential police informants, without much fear. This situation is compatible with two possible states.

One is the possibility that the black market entrepreneurs have bribed the police and law enforcement authorities to such a degree that they enjoy an almost perfectly safe working environment. However, this would require such a degree of corruption on the part of all levels of the police and throughout the hierarchies of the Ministry of Interior that it is simply too hard to believe. The author is inclined to rule this possibility out.[11] The remaining possibility is that at least some black market entrepreneurs (probably the biggest ones) are buying hard currency on behalf of the State Bank. This would explain why they operate so openly and without fear of arrest and prosecution and why they always buy and almost never sell hard currency.[12] In the author's opinion, this tends to support the hypothesis that the Eastern governments participate in the black market in foreign exchange.

Among other buyers of hard currency on the black market, resident nationals who occasionally travel to the West as tourists are quite important in Czechoslovakia, Hungary, and Poland.[13] The last group of buyers of hard currency on the black market are foreign nationals. This may seem somewhat surprising since foreign nationals are typically sellers of hard currency in illegal transactions. Nevertheless, foreign resident diplomats and foreign owners of domestic-currency accounts may occasionally want to liquidate their holdings of domestic currency, although typically they would be better off by converting them into real goods (art, antiques, etc.) and taking them out of the country, which is relatively easy at least in the case of foreign diplomats. Foreign workers (particularly from Poland) and foreign military personnel (Soviet officers) have been very active in black market arbitrage in Eastern Europe, particularly by purchasing relatively cheap hard currency on the black market in Czechoslovakia, East Germany, and Hungary, and selling it at a considerable profit on the black market in Poland and the USSR.[14] Finally, professional speculators and smugglers may be involved in arbitrage between the domestic black market in hard currencies and the non-convertible Eastern currency market abroad, or alternatively they may be buying hard currency from proceeds of sale of items smuggled into the country (gold, coins, jewelry, blue jeans, razor blades, calculators, digital watches, automobiles, drugs, etc.).

Next, we should consider those black market participants who are involved in the foreign extension of the domestic black market in hard currencies, which the author calls the external black market. This is a legal market in Eastern non-convertible currencies in the West. Table 2 below presents an exhaustive list of possible participants in the external black market. Among the sellers of the non-convertible Eastern currencies is the "Eastern Nationals" group, within which the most interesting are corrupt Eastern diplomats and other government officials. Various sources have alleged large-scale smuggling of Eastern banknotes to Vienna, Zurich, West Berlin, and Beirut (prior to the Lebanon crisis), where suitcases of crisp, new, consecutively numbered bills in original sealed packages arrive with fair regularity.[15] Hard currency is purchased for non-convertible Eastern currencies

Table 2. Possible Participants in the Non-Convertible Eastern Currency Market in the West

Sellers of Non-Convertible Eastern Currency	Buyers of Non-Convertible Eastern Currency
(i) Eastern Nationals (a) tourists from the East in need of hard currency (b) Eastern diplomats (c) corrupt Eastern government officials (d) defectors from the East	(i) Foreign Nationals (a) Western tourists travelling to the East (b) diplomats (c) businessmen (d) foreign students (e) professional speculators and smugglers
(ii) Eastern State Banks and Their Agents (a) agents of Eastern State Banks involved in arbitrage between domestic hard-currency market and non-convertible Eastern currency market abroad (b) agents of Eastern State Banks supplying non-convertible Eastern currency to Western banks in order to encourage the segment of Western tourist market with high price elasticity of demand for travel to the East	(ii) Eastern Nationals (a) returning nationals who desire to earn the risk premium for illegal transportation of domestic non-convertible currency into an Eastern country
(iii) Foreign Nationals (a) diplomats (b) returning foreign workers (c) owners of non-convertible accounts in the East (foreign writers, musicians, etc.) (d) professional speculators and smugglers	(iii) Eastern State Banks and Their Agents (a) agents of Eastern State Banks involved in arbitrage between domestic hard-currency market and non-convertible Eastern currency market abroad
(iv) Western Banks and Currency Dealers	(iv) Western Banks and Currency Dealers

and is reportedly deposited in numbered accounts where it is earning interest which it would not earn if kept in the form of black market hard-currency cash in the East. This seems to be one of the ways in which a certain segment of the new Eastern elite insures its financial security.

However, even more fascinating is the fact that non-convertible Eastern currencies are probably sold to Western banks and exchange dealers directly by Eastern State Banks or agents acting on their behalf in direct violation of banking laws of these countries. Until July 1979, the existence of the above activity could only be plausibly deduced. The quantity of banknotes directly off the printing press that was arriving in major centers of external black market activity and the regularity of their arrivals were too great not to suspect a highly organized operation that would have required the participation of government authorities (the State Bank, customs and border authorities, etc.). On July 16, 1979 the international issue of Newsweek magazine presented positive proof of the direct participation of at least one Eastern European government in this activity.[16] Newsweek reported that the East German government or its agents have recently been selling truckloads of East German marks (M) to Swiss banks and currency dealers in exchange for West German marks (DM). While officially M and DM are valued at parity in East Germany, and the tourist rate of a DM in East Germany is currently around 1.3 - 1.4 M, the East German government was willing to accept an exchange rate of M 5 and possibly even more for DM 1. It must have been well aware that its currency was subsequently re-sold to banks and currency dealers in West Berlin and in towns along the East German border and later sold to West Germans visiting East Germany.[17] Thus West German visitors to East Germany have been smuggling East German marks back into the country with the implicit blessing of the East German government and enjoyed cheaper vacations and/or could appear very generous to their poorer Eastern friends and relatives by giving them East German banknotes purchased at substantial discount outside the country.

There are two possible explanations why the East German government would be willing to violate its own banking laws and condone their violation by visiting West Germans as well. It is possible that the East German government, struggling with the worst economic performance in the country's history and rapidly growing external debt in the West, was trying to raise some hard currency quickly to cover its short-term debt obligations in the West. The more likely possibility is that the domestic black market in DM was "getting completely out of hand" and/or the hard-currency proceeds of the East German government from tourism were stagnant or falling while the number of tourists arriving kept increasing.[18] Since the transaction cost of direct intervention in the internal black market may be quite high (a large number of pseudo-black marketeers must be employed and their productivity is probably not that high), the East German government may have found it preferable to combat the internal black market by intervention in the external black market with low transaction cost but also a poorer exchange rate for the East German currency. The increased availability and attractive exchange rate of the East German mark in the external black market would discourage West German travellers to East Germany from selling West German marks or giving them as gifts in East Germany and this in turn would lead to a reduction in the volume of internal black market activity in West German marks.

In addition to selling Eastern non-convertible currencies on the external black market, the State Banks of the Eastern European countries and the USSR could possibly even be involved in simple arbitrage between the domestic hard-currency market and the non-convertible Eastern currency market abroad. If the external black market value of a particular Eastern currency reached a relatively high level (perhaps exceeding its value on the internal black market, which would imply the elimination of the import risk premium), the State Bank or its agents in the West might sell some Eastern currency on the external black market. On the other hand, if the external black market value of an Eastern currency reached a relatively low level, it may become profitable for the State Bank to intervene and purchase its currency on the external black market and import it back into the country.

4. Legal Restrictions on Private Foreign Exchange Transactions and Ownership of Foreign Exchange

Having analyzed different kinds of participants in the two black markets, it is of interest to look at the types of transactions they are involved in and their legality. Table 3 below looks at the legality of some basic foreign exchange transactions and regulations concerning the ownership of foreign exchange and other foreign assets.

To summarize the results: the purchase and sale of foreign exchange in private market is illegal in all countries, and except in Czechoslovakia the same is true for the purchase and sale of hard-currency coupons. Only in Poland is the enforcement of these regulations very lax. Foreigners may give and domestic residents may receive hard-currency banknotes in all countries except Hungary and the USSR. These banknotes have to be exchanged for domestic currency or hard-currency coupons within a specified period of time in all countries but Poland (East Germany abolished the right to own foreign exchange only in the summer 1979). Export and import of domestic currency is forbidden in all countries. Ownership of foreign securities is legal only in Czechoslovakia and Romania and ownership of foreign bank balances is legal only in Poland and Romania. However, in the case of Romania, it may not be particularly easy to obtain the necessary permission from the authorities.

One interesting observation that emerges from Table 3 is that the most liberal Eastern European country -- Hungary -- and the

Table 3. Legality of Certain Types of Foreign Exchange Transactions in Eastern European Countries and in the Soviet Union in the mid-1970's

Country / Type of Transaction	Bulgaria	Czecho-slovakia	East Germany	Hungary	Poland	Romania	USSR
Purchase of Foreign Exchange[a]	No	No	No[g]	No	No[m]	No	No
Purchase of Hard-Currency Coupons	No	Yes[c]	No[h]	X	No	X[p]	No
Sale of Foreign Exchange[a]	No	No	No[g]	No	No	No	No
Sale of Hard-Currency Coupons	No	Yes[c]	No[h]	X	No	X[p]	No
Receiving Foreign Exchange in Cash Form	Yes	Yes	Yes	No	Yes	Yes	No
Giving Foreign Exchange in Cash Form to a Resident National	Yes	Yes	Yes	No	Yes	Yes	No
Ownership of Foreign Exchange	No[b]	No[d]	Yes/No[i]	No[k]	Yes[n]	No[r]	No[t]
Export and Import of Domestic Currency	No	No[e]	No[j]	No[l]	No[o]	No	No
Ownership of Foreign Securities	No	Yes[f]	No	No	No	Yes[s]	No
Ownership of Foreign Bank Balances	No	No	No	No	Yes	Yes[s]	No

Source: <u>Pick's Currency Yearbook</u>, 1976 edition; J.L. Kerr, "Hard-Currency Shops in Eastern Europe", Radio Free Europe Research, RAD Background Report/211, October 27, 1977; Dietrich André Loeber, "The Second Currency in the Soviet Union: On the Use of Checks in "Valuta-Rubles" by Soviet Citizens", Occasional Paper No. 32, Kennan Institute for Advanced Russian Studies, Washington, D.C., 1978; N.Y. Times, April 5 and 6, 1979, p. 5.

[a] Excluding purchase of foreign exchange from the State Bank for travel purposes and small remittances abroad, and sale to the State Bank.

[b] All receipts from abroad must be surrendered to the State Bank in exchange for domestic currency, or in exchange for non-transferable "Corecom" vouchers for purchases in "Corecom" stores. Hard-currency cash could be used by Bulgarian citizens to purchase goods in Corecom stores if they could prove their right to hold foreign currency up to mid-1970's. By 1977 no questions were being asked of Bulgarians spending up to $100. However, this concession could be revoked at any time, since the rules had not been changed officially.

[c] "Tuzex koruna" accounts with the State Bank of Živnostenská banka can be sold and bought at the officially established conversion rate for domestic currency. Effectively, however, Tuzex koruna can be bought and sold at the prevalent black market rate (Kčs 4-6 for 1 Tuzex koruna) without any risk.

[d] All receipts from abroad must be surrendered to the State Bank in exchange for domestic currency, or in exchange for Tuzex koruna used for purchases in "Tuzex" stores.

[e] Except for Kčs 500 which can be exchanged abroad if necessary.

[f] Only if declared to the authorities.

[g] When exchange controls were dramatically eased on May 15, 1975, it was not clearly stated whether foreign exchange could be privately traded among resident nationals. There was neither an authorization nor a prohibition of private foreign exchange transactions in the stated regulations. However, this is likely to be an omission and the author concludes that such transactions are in fact illegal.

[h] Hard-currency coupons which are not transferable (with the name of the recipient inscribed on them) came into existence only in the summer 1979. The reason for their non-transferability is to limit the speculation in them.

[i] Prior to the summer 1979 ownership of hard-currency banknotes received through mail (except for checks from West Germany and West Berlin), or from visiting relatives and friends was legal. Such funds could be used for purchases at hard-currency stores called "Intershops" and to buy gasoline at "Inter Gas Stations". In addition, East Germans could maintain foreign-currency accounts in branches of the State Bank. In order to limit the role of the West German mark in the East German economy (particularly the second economy) and limit currency speculation, all these privileges were revoked in the summer 1979. Hence-

forth, all receipts from abroad must be surrendered to the State Bank in exchange for domestic currency, or in exchange for non-transferable "Intershop" vouchers used for purchases in these stores.

[j] Except for M 300 for travel to and from socialist countries.

[k] Approximately 10,000 Hungarians who earn Western currency through royalties, fees, etc. are allowed to maintain hard-currency accounts. They can draw checks on these accounts and use them as means of payment in "Intertourist" shops. Otherwise, customers in Intertourist shops and Consumtourist shops (for diplomats) have to identify themselves as foreigners by passport. Any hard currency received by a Hungarian in the form of a check (receiving cash is illegal) as a gift from a friend or a relative has to be exchanged for domestic currency at the State Bank. Thus only earned foreign income can be spent by Hungarians in Intertourist shops.

[l] Except for Ft 200 which can be taken out of and into the country during a trip abroad.

[m] However, any Polish citizen who has $ 300 can open a hard-currency account with the State Bank that can be used for travel to the West. Since no questions are typically asked about the source of this hard currency, it seems that the purchase of foreign exchange on the black market is tolerated by the authorities.

[n] Polish citizens can own both foreign currency and hard-currency accounts with the State Bank. Foreign earnings, remittances from friends and relatives, or even hard currency purchased on the black market can be used for purchases in "Pewex or P.K.O." stores, Agromet (agricultural machinery), Pol-mot (passenger automobiles), and Locum (housing and furniture). Buyers are not normally asked about the source of their foreign currency, provided they refrain from too ostentatious buying.

[o] Up to Zl 1000 can be exported or imported by Polish residents.

[p] Information on whether "Comtourist" shops accept only hard currency or some form of hard-currency coupons is not readily available.

[r] Except for specified amounts, all foreign exchange received by residents, abroad or domestically, in the form of wages and salaries, inheritances, gifts, honorariums or pensions must be surrendered to the State Bank in exchange for domestic currency at the official tourist rate of exchange. However, anyone who can prove his legitimate title to foreign currency may spend it in "Comtourist" stores. It seems then that a certain portion of money earned abroad or received as gifts

from friends and relatives in the West can be used by Romanians in these stores.

[s] Provided permission is obtained from the authorities.

[t] All receipts from abroad must be surrendered to the State Bank in exchange for domestic currency, or in exchange for various forms of hard-currency vouchers used for purchases in "Beriozka" stores (some of these stores accept convertible cash and bank checks only, others accept various types of "valuta-checks") or similar stores with different names outside the RSFSR. At the end of December 1975, one type of Preferential Ruble Certificate ("Daro-Ruble") was abolished. Henceforth, Soviet citizens receiving remittances from friends and relatives abroad would have to exchange them for domestic currency. In January 1976, a 30 percent tax was slapped on remittances from abroad and a new Punitive Rate was established. Exempt were hard-currency earnings of Soviet artists, royalties, inheritances, alimony and foreign real estate proceeds. The main aim of this measure was to reduce the volume of financial contributions to dissident causes in the USSR. However, approximately 260,000 members of Nomenklatura (members of Politbureau, high Party officials, high military officers, police and KGB officers, Heroes of Labor and recipients of some medals, outstanding scientists, cosmonauts, sportsmen, etc.) are entitled to hard-currency vouchers which increase the purchasing power of their rubles 4-11 times (by about 650 percent on the average).

most conservative member of the Eastern bloc -- the USSR -- have the most stringent laws in the area of regulation of private foreign exchange transactions and ownership. In the case of Hungary, this is clearly due to her special relationship with Austria. Having agreed to allow Austrian tourists to enter Hungary without visa, the Hungarian government quickly realized that the population was rapidly becoming accustomed to the Austrian shilling as the "second currency". The flood of Austrian tourists that began arriving in Hungary in 1978 supplied plentiful amounts of shillings to the black market in an effort to get the maximum out of their money. In order to prevent the subsidization of consumption of Austrian tourists in Hungary, the Hungarian government considerably tightened its foreign exchange laws in early 1979.[19] Similarly, the East German government which faced the same problem due to the special relationship that exists between East Germany and West Germany and West Berlin underestimated the potential impact of the West German mark as the second currency in East Germany and had to institute highly restrictive foreign exchange measures in the middle of 1979, when it effectively began to lose control over the supply of money in East Germany.

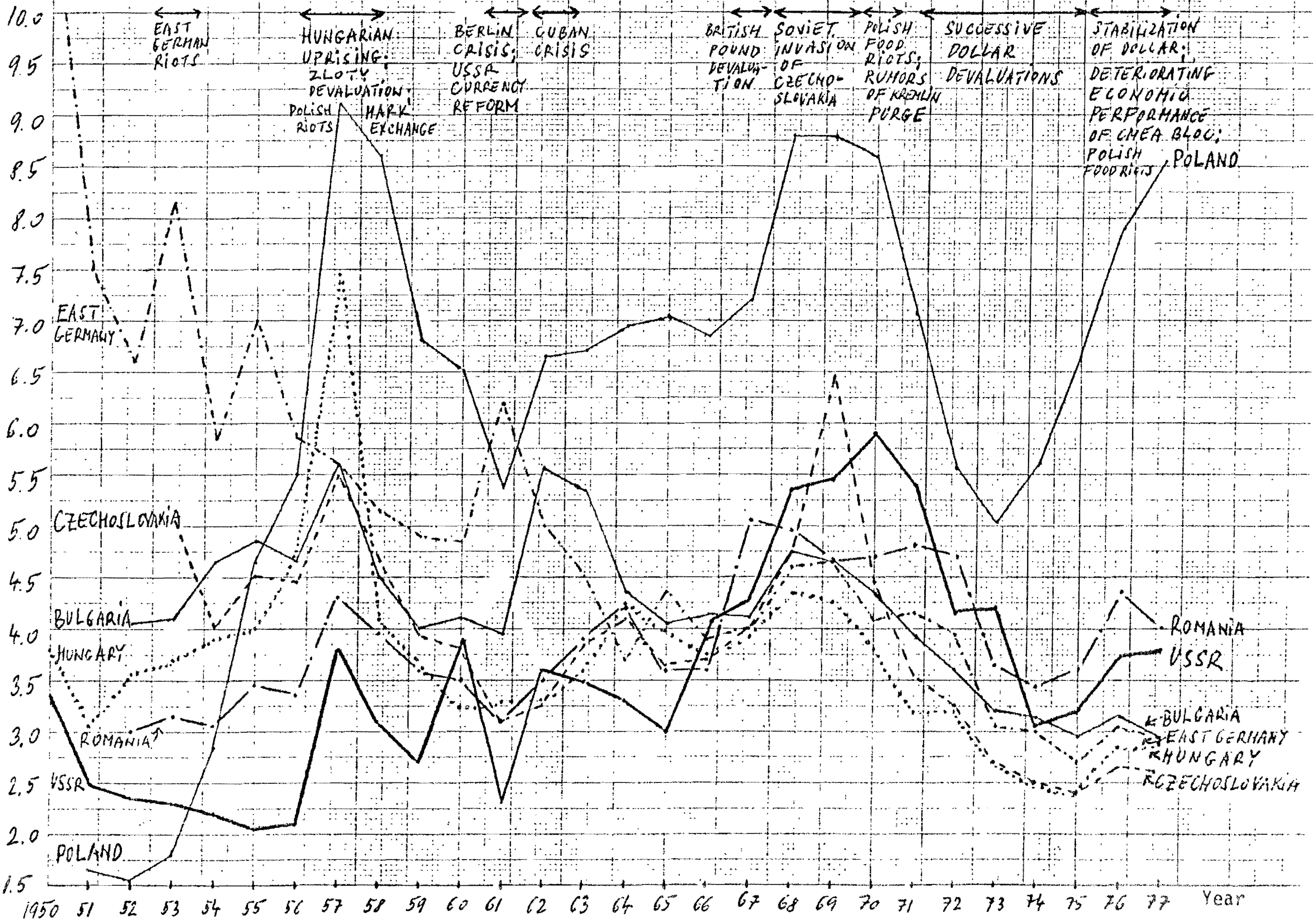
As far as the remaining countries are concerned, Poland has the most liberal laws regulating foreign exchange transactions and ownership, followed by Czechoslovakia, East Germany (prior to the summer of 1979), Romania, and Bulgaria. The reason for the relatively liberal laws in Poland is that the Polish govern-

5. Black Market Exchange Rates

A good deal of information is available on the black market exchange rates of a U.S. dollar and other types of exchange rates in Pick's Currency Yearbook published by Franz Pick.[20] This data is summarized in Tables 1 through 5 in the Appendix. Since Pick's Currency Yearbook publishes monthly black market quotations of a U.S. dollar, the data presented in the Appendix are arithmetic averages for each year.[21] The Appendix contains information on the black market rates of a U.S. dollar in six Eastern European countries and in the USSR for the period 1950 - 1977 both in terms of local currency (Table 1) and in ruble equivalents (Table 2), tourist rates of a U.S. dollar in terms of local currency (Table 3) and in ruble equivalents (Table 4), and finally the ratios of the black market rates to tourist rates of a U.S. dollar. Some of the data are plotted and presented in Charts 1 through 3 below.

Chart 1 presents information on the black market rates of a U.S. dollar in ruble equivalents per one U.S. dollar during the period 1950 - 1977. An attempt is also made to show the impact of political and economic crises within and outside of the bloc of the CMEA countries on black market exchange rates. Chart 1 indicates that by 1964 black market rates of a U.S. dollar have settled into a much narrower range than during the earlier years in all countries except Poland, indicating the stabilization of Eastern European currencies from the impact of currency reforms of the 1950's and early 1960's and from ment had realized earlier than other Eastern European governments the advantage of setting up a two-market economy, one with stores that sell for zlotys, and one with stores that sell for hard currency. Relatively liberal foreign exchange laws encourage the maximum inflow of hard currency into Poland in the form of gifts and handpayments. The black market has been tolerated by the authorities in order to prevent a discontent on the part of those who do not receive foreign exchange from abroad -- they are free to purchase it on the black market. At the same time, given the relatively small allocation of hard currencies for Polish tourism to the West, the high cost of black market hard currency (which can be used for this purpose legally by opening a hard-currency travel account with the State Bank) discourages Polish tourism to the West and encourages purchases of scarce consumer goods in the state-owned hard-currency stores.

Chart 1. Black Market Exchange Rates of a U.S. Dollar (In Ruble Equivalents per U.S. Dollar)

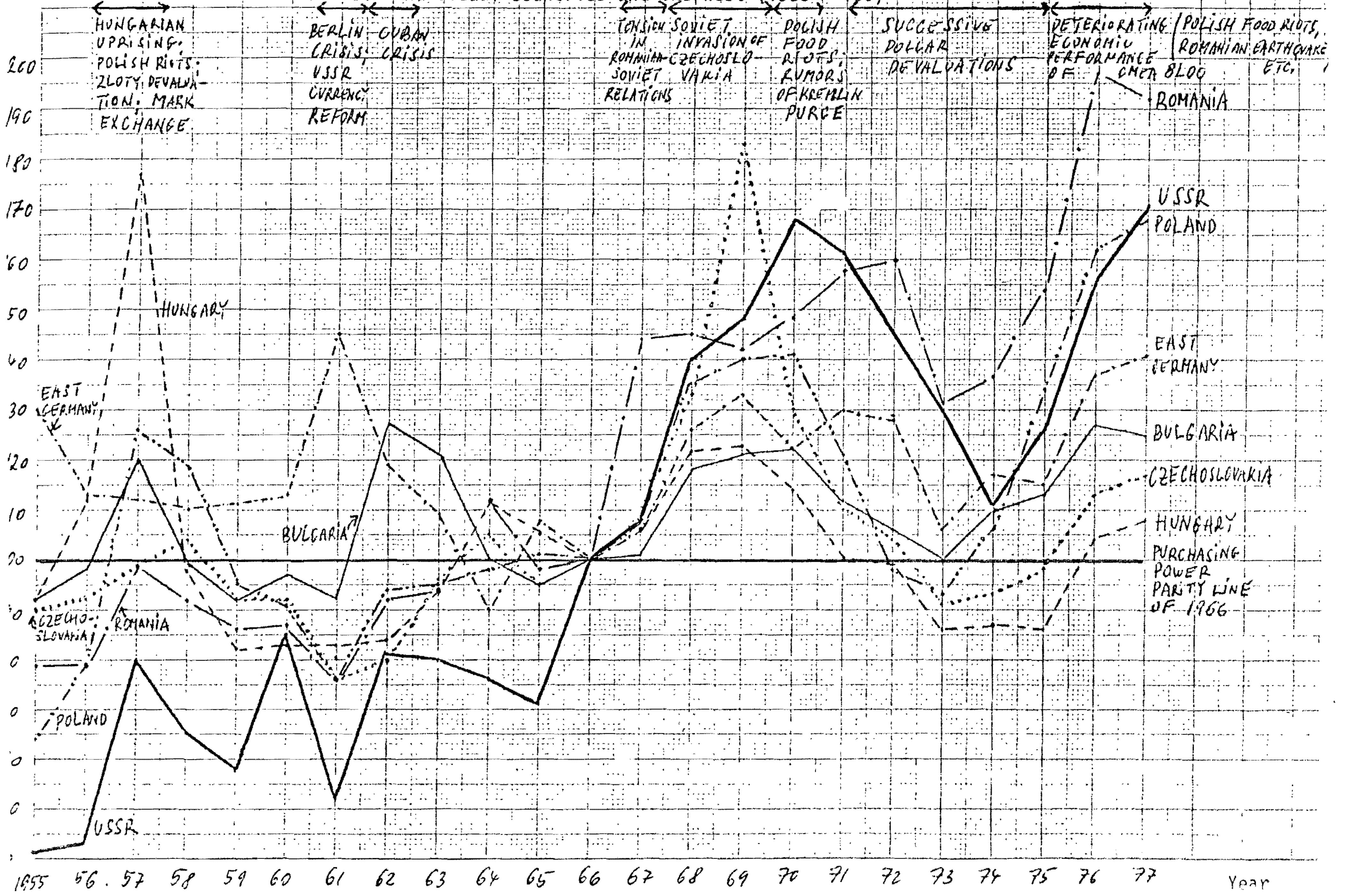


three major political crises (Hungary in 1956, Berlin in 1961, Cuba in 1962). The Soviet invasion of Czechoslovakia in 1968 caused once again an increase in the spread of black market rates of the dollar which have not as yet narrowed into the bounds observed during the period 1964 - 1968. However, a continued wider spread of black market exchange rates of the dollar in the 1970's is primarily attributable to different conditions in domestic markets for consumer goods, different rates of inflation in Eastern European countries (especially different rates of hidden inflation), differences in regulations concerning the travel to the West, and differences on the supply side of the dollar.

One interesting observation is that since 1956 the black market rate of a U.S. dollar in Poland has been higher than in the rest of Eastern Europe and in the USSR (except in 1961 when the East German black market rate during the Berlin crisis exceeded that in Poland). This is probably due to three factors. Firstly, the Polish zloty has been overvalued vis-à-vis the ruble and other Eastern European currencies since the first round of CMEA attempts to value Eastern currencies more realistically with respect to the dollar and each other that took place in 1957/58. This may have been done at the insistence of the Polish government in order to discourage Eastern tourists from buying too many consumer goods on the already strained Polish consumer goods market which would lead to a further reduction in the supply of consumer goods to Polish consumers. While the overvaluation of the zloty might imply a subsidization of Polish tourism to the rest of CMEA, restrictions on the frequency and length of stay for trips of Polish citizens to Eastern Europe were imposed in order to limit the demand for other Eastern European currencies.[22] Secondly, Poland has by far the most liberal laws concerning foreign exchange transactions and ownership of all CMEA countries. Virtually anybody with U.S. $ 300 or their equivalent in other hard currencies can deposit them in a special travel account and obtain permission to travel to the West. No questions are asked about the source of these funds and consequently they are frequently purchased on the black market. This factor has shifted the Polish demand curve for hard currency far to the right relative to other Eastern European countries. Thirdly, Poland has probably had the most serious persistent excess demand for consumer goods of all CMEA countries and the Polish government has long recognized the advantage of two-currency economy -- one where goods are sold for zlotys at low prices and are frequently not available and one where goods are sold for dollars in hard-currency stores and are readily available. This fact, too, has contributed to a further rightward shift in the Polish demand curve for black-market dollars relative to the rest of Eastern Europe.

Chart 2 presents information on the black market exchange rates of a U.S. dollar adjusted for the differences in inflation in the East and in the West (crudely approximated by the U.S.

Chart 2. Index of Black Market Exchange Rates of a U.S. Dollar Adjusted for the Differences in Inflation Rates Between Individual Countries and the West (1966 = 100)



CPI index). The plotted data represent the following adjusted index of black market rates of the dollar:

$$E_t = \frac{\dfrac{\text{black market exchange rate in year t}}{\text{black market exchange rate in year 1966}} \times 100}{\dfrac{\text{consumer price index in Eastern European country in year t (1966=100)}}{\text{consumer price index in the United States in year t (1966=100)}}}$$

23

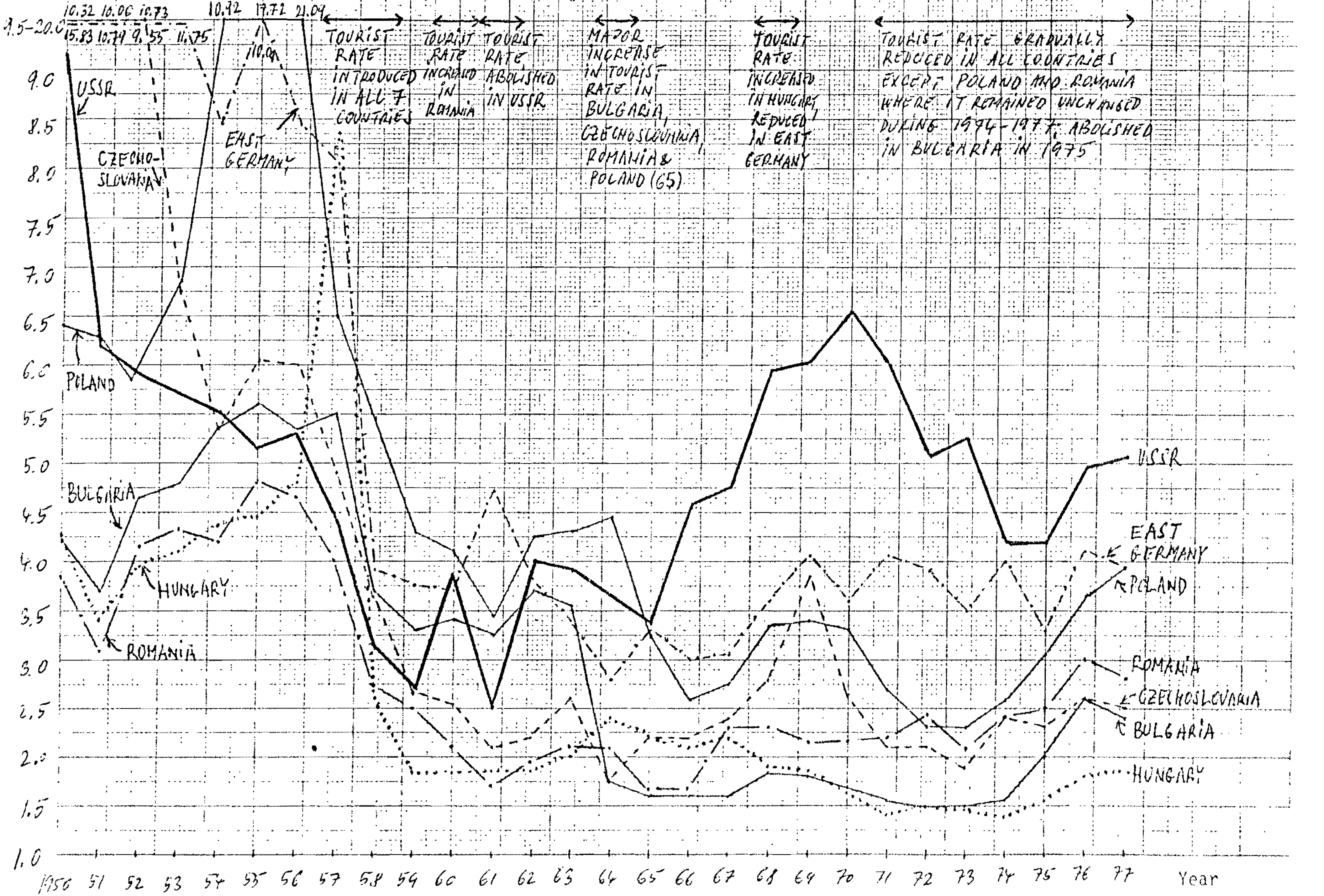
Year 1966 was selected as a base of the index because during 1966 the spread of black market exchange rates of a U.S. dollar in Eastern Europe and in the USSR was narrower than during any other year in the sample. In addition, year 1966 was characterized by the absence of any major political or economic crises both inside and outside of the CMEA bloc.

If we assume that consumers in each Eastern European country and in the USSR consumed a particular bundle of consumer goods and services for which they used U.S. dollars as means of payment and that the cost of this bundle in Eastern Europe and in the U.S. moved approximately with the respective CPI's, then the black market exchange-rate index adjusted for the differences in inflation rates should have roughly followed the line labelled "purchasing power parity (PPP) line of 1966". Thus the deviations in black market exchange rates from the PPP line should be caused primarily by political factors, hidden inflation in the CMEA countries, or changes in regulations concerning travel to the West which could cause shifts in the demand for black market hard currency. Chart 2 indicates that during the period 1964 - 1974/75 black market exchange rates responded to different trends in Eastern European and Western inflation. This also holds true for the period 1955 - 1963 for the six Eastern European countries but not for the USSR. The substantial deviations from the PPP line that took place in 1957 and in the late 1960's and early 1970's were caused mostly by political factors. Only the USSR line indicates the possibility of a steady hidden inflation during the period 1955 - 1966. The most surprising result is a sharp upward trend away from the PPP line in all CMEA countries beginning in 1974/75. In the absence of a major political crisis, this must be attributed primarily to the rapidly increasing hidden inflation connected with the general deterioration of economic performance of the CMEA bloc in the second half of the 1970's. [24]

It is also interesting to note that the largest deviations from the PPP line since 1974 have taken place in Romania, the USSR and Poland (in spite of open inflation there since 1974). What these three countries have in common is a political leadership relatively unresponsive to consumer needs, especially in the former two countries, and the most chronic excess demand in the consumer goods market. Of the remaining four countries, Hungary has had more open and probably less hidden inflation than the remaining countries because of the greater role of the market in the economy and the greater decentralization of decisionmaking. This is probably the best explanation why her black market exchange-rate index deviates least from the PPP line.

Finally, Chart 3 presents information on the ratios of the black market exchange rates of a U.S. dollar to the official tourist rates, which were introduced in all countries in 1957/58. This chart indicates how profitable it is for a Western tourist or any holder of hard currency to sell it on the black market instead of exchanging it legally. In addition, the chart indicates the degree to which each country tries to attract tourists and/or discourage black market activity on the part of Western tourists. The author's own ranking of the seven countries by the degree of openness to tourism (from the lowest to the highest) is: the USSR, East Germany, Czechoslovakia, Romania, Poland, Hungary, and Bulgaria. Thus in the two countries where Western tourists are least welcome, a Western tourist stands to earn the highest premium from dealing on the black market for foreign exchange. On the other hand, Western tourists have steadily obtained the best exchange rates in Bulgaria (since 1964) and in Hungary.[25] Bulgaria is the most dependent Eastern European country on export of tourist services to the West. The Hungarian government has been the most concerned Eastern European government over the existence of the black market in foreign exchange and most eager to combat it. In addition, Hungary is the only Eastern European country where domestic residents do not have access to hard-currency stores (unless they have earned income in the West) and this factor considerably reduces the Hungarian demand for hard currency relative to other CMEA countries, resulting in typically (since 1966) the lowest black market rate

Chart 3. Ratios of Black Market Exchange Rates to Tourist Rates of a U.S. Dollar



of a U.S. dollar (except in 1976 and 1977 when it slightly exceeded the Czechoslovak rate).

6. Volume of Black Market Hard-Currency Transactions

This is an area where only an extremely limited amount of information is available. Even an authoritative source on matters of black markets in foreign exchange -- Pick's Currency Yearbook -- offers relatively little information, with the exception of some information on black market activities in East German currency in West Berlin and West Germany.

According to this source, the monthly volume of black market transactions around August 1961, when the Berlin wall was erected and rumors of new exchange of banknotes were circulating, was estimated at about 25 - 30 million M. It then continued to rise progressively to about 250 and at times as much as 350 million M in 1964. It then declined steadily, fluctuating at about 10-20 million M per month in 1966 and 1967. After the market settled down from the impact of the Soviet invasion of Czechoslovakia, trading volume in East German marks in West Berlin was reported to be in the M 6-8 million range. When the East German banknotes reached a new high value in July 1973, monthly transactions in West Berlin and elsewhere in West Germany were reported to be around M 500 million. Capital flight, mainly in the form of banknote transfers to West Germany and Austria, was estimated to be in the M 150-200 million range in 1973, excluding "exports" in diplomatic pouches of socialist couriers. In 1974 trading in DM in East Germany was estimated to be around M 20-25 million per month, especially around the Christmas time. With the increased freedom of ownership of foreign banknotes authorized in East Germany in May 1975, black market operations remained mostly limited to unauthorized transfers of East German currency to West Germany and West Berlin.[26] Otherwise, the same source estimates that in Poland in the early 1970's, the amount of zloty transactions in the black market U.S. dollar was in the 3 - 5 billion zlotys range per year. In other words, somewhere between U.S. $ 2.5 - 4.2 million would change hands on the black market per month.[27]

Since there is very little hope that more useful data concerning the volume of black market foreign exchange transactions in Eastern Europe and in the USSR will become available in the near future, the author proposes to make a rough estimate using the procedure suggested below. This procedure can be used to make a rough estimate of the volume of black market transactions based on the official balance-of-payments statistics and two assumptions, one concerning the proportion of money exchanged by Western tourists in the legal market and in the black market out of their total spending, and one concerning the proportion of handpayments and cash gifts to country's residents by visiting Western friends and relatives out of total gifts, including bank transfers and checks.

Presently three Eastern European countries publish or release information on government hard-currency receipts from tourism and unrequited private transfers (pensions, gifts, inheritances, etc.) -- Hungary, Poland, and Romania. In 1977 their respective hard-currency receipts from Western tourism were estimated to be U.S. $ 109, 85, and 98 million. It is more difficult to estimate the volume of private unrequited transfers but on the basis of partial information the author would estimate them to be in the U.S. $ 30 - 40 million range in the case of Hungary, $ 10 - 15 million in Romania, and $ 300 - 420 million in Poland.[28] If one is willing to accept an estimate that on the average Western tourists exchange officially only 2/3 to 3/4 of what they spend in these countries, and that handpayments and cash gifts account for somewhere between 1/3 to 1/2 of the total value of monetary gifts, the following range of estimates of the volume of hard currencies channelled into the black market in year 1977 emerges (measured in terms of dollars):

Country / Source of Black Market Currencies	Hungary	Poland[29]	Romania
Foreign Tourists	$ 36-55 mil.	$ 28-43 mil.	$ 33-49 mil.
Handpayments and Cash Gifts	$ 15-40 mil.	$150-420 mil.	$ 5-15 mil.
Both Sources	$ 51-95 mil.	$178-463 mil.	$ 38-64 mil.
Mean Estimate	$ 73 mil.	$ 320 mil.	$ 51 mil.
Mean Estimate per Capita	$ 6.85	$ 9.22	$ 2.38

While the magnitudes of the above sums may seem relatively small, if we assume that every second person in these countries is in the labor force, then an average person in the labor force would spend 0.6 percent of annual gross income (at black market exchange rates) on hard currencies obtained in the black market in Romania, 1.4 percent in Hungary, and 4.6 percent in Poland.[30] Since especially in Romania and Hungary only a small portion of the population is probably involved in black market hard-currency transactions, for some segments of the population the black market activity must be of considerable importance.

7. Conclusions

A number of interesting conclusions emerges from this study of hard-currency black markets in Eastern Europe and in the USSR. The model of behavior of a monopsonistic buyer of foreign exchange presented in section 2 of the paper suggests that their governments may have an incentive to participate in the black market (both internal or external) either as a means of earning an additional hard-currency revenue from tourism at lower cost than under competitive conditions or as a means of combatting the genuine black market by open competition for hard currency on the black market. While the intervention by State Banks or their agents in the internal hard-currency black market can only be plausibly deduced, a positive proof exists that at least the government of one Eastern European country -- East Germany -- participates in the external black market in non-convertible Eastern currency (mark) in violation of her own banking laws.

On the other hand, the governments have a strong incentive to limit the scale of black market operations by legal means in order to prevent large-scale subsidization of consumption of foreign tourists visiting Eastern countries. This takes place since domestic private buyers of hard currency consider only their private cost of this transaction. However, the social cost of a black market purchase of hard currency from Western tourists is much greater because tourists consume many commodities heavily subsidized by Eastern governments for social reasons (in order to achieve greater equality in the distribution of income). In addition, other elements of social cost of black market activities include the deterioration of a country's balance of payments, negative impact on work incentives in the first economy, stimulus to growth of corruption and private business activity in the second economy, partial loss of government control over the supply of money and the distribution of income, increased uncertainty in markets for some consumer goods, etc.

Black market exchange rates of a key Western currency -- the U.S. dollar -- are found to be roughly determined by its purchasing power (in hard-currency stores) in the long run, while in the short run political and economic crises appear to play an extremely important role in determining the short-term exchange rate. The greatest potential benefits from participation in the black market in hard currencies appear to be available in the USSR, East Germany, and Poland, where the spread between the black market exchange rate and the tourist exchange rate is the greatest. The spread is the lowest in Bulgaria and Hungary. The greatest potential profit from arbitrage between different East European black hard-currency markets involves the purchase of hard currencies in black markets in Bulgaria, Czechoslovakia, East Germany and Hungary and selling them in Poland at a ruble-equivalent black market exchange rate double that in the rest of Eastern Europe.

Finally, a very crude attempt is made to estimate the volume of black market hard-currency transactions. For the three countries for which the calculation could be made (Hungary, Poland, Romania) taken together, the mean estimate is around $ 440 million in year 1977.

APPENDIX

Table 1. Black Market Rates of a U.S. Dollar (In Units of Local Currency per U.S. Dollar)

Year	Bulgaria (leva)	Czechoslovakia (koruna)	East Germany (mark)	Hungary (forint)	Poland (zloty)	Romania (leu)	USSR (ruble)
1950	n.a.	n.a.	35.15	49.96	n.a.	n.a.	3.34
1951	n.a.	n.a.	23.96	39.88	25.33	n.a.	2.49
1952	3.17	n.a.	21.20	46.65	23.38	25.03	2.35
1953	3.26	48.66	26.09	48.35	27.33	25.95	2.29
1954	3.63	38.38	18.79	51.29	43.67	25.22	2.19
1955	3.80	43.58	22.39	52.50	70.88	28.69	2.05
1956	3.64	42.96	18.79	62.31	84.35	27.91	2.11
1957	4.38	52.96	17.86	97.96	139.58	35.88	3.79
1958	3.52	44.90	16.43	53.52	131.25	32.98	3.09
1959	3.14	38.02	15.73	43.10	103.75	29.79	2.70
1960	3.26	36.69	15.57	42.81	99.00	29.08	3.85
1961	3.07	29.90	19.79	43.27	82.33	25.81	2.28
1962	4.33	31.29	16.05	43.14	102.04	29.09	3.57
1963	4.16	37.12	14.38	47.46	102.71	32.36	3.49
1964	3.39	39.44	11.79	55.94	106.29	34.97	3.28
1965	3.15	35.17	13.86	52.59	108.08	29.85	3.02
1966	3.22	35.79	12.46	49.18	104.58	29.91	4.08
1967	3.19	38.57	12.83	51.61	110.46	41.72	4.28
1968	3.71	45.63	14.76	57.02	134.48	40.98	5.35
1969	3.63	62.25	14.87	55.49	134.67	38.74	5.44
1970	3.39	42.90	13.15	49.72	131.83	39.02	5.89
1971	3.07	34.35	13.32	42.02	107.63	39.75	5.40
1972	2.80	31.28	12.58	42.00	84.75	38.82	4.16
1973	2.48	26.02	9.71	35.39	77.25	30.19	3.96
1974	2.47	24.00	9.63	32.91	85.44	28.69	3.05
1975	2.32	23.28	8.68	31.29	101.62	29.71	3.18
1976	2.47	25.69	9.75	37.52	121.12	36.20	3.72
1977*	2.29	25.15	9.45	38.00	130.75	33.37	3.81

* January to March only.

Source: Pick's Currency Yearbook, various issues. The annual data are arithmetic averages of monthly black market quotations. The Bulgarian, Romanian, and USSR data were adjusted for the effect of currency reforms (Bulgaria in 1962, Romania in 1953, USSR in 1961).

Table 2. Black Market Rates of a U.S. Dollar (In Ruble Equivalents per U.S. Dollar)

Year	Bulgaria	Czecho-slovakia	East Germany	Hungary	Poland	Romania	USSR
1950	n.a.	n.a.	10.98	3.81	n.a.	n.a.	3.34
1951	n.a.	n.a.	7.49	3.04	1.66	n.a.	2.49
1952	4.06	n.a.	6.62	3.56	1.53	3.02	2.35
1953	4.18	5.04	8.15	3.69	1.79	3.13	2.29
1954	4.65	3.98	5.87	3.91	2.85	3.04	2.19
1955	4.87	4.52	7.00	4.00	4.63	3.46	2.05
1956	4.67	4.45	5.87	4.75	5.51	3.36	2.11
1957	5.62	5.49	5.58	7.47	9.12	4.32	3.79
1958	4.51	4.65	5.13	4.08	8.58	3.97	3.09
1959	4.02	3.94	4.92	3.29	6.78	3.59	2.70
1960	4.18	3.80	4.87	3.26	6.47	3.50	3.85
1961	3.94	3.10	6.18	3.30	5.38	3.11	2.28
1962	5.55	3.24	5.02	3.29	6.67	3.50	3.57
1963	5.33	3.85	4.49	3.62	6.71	3.90	3.49
1964	4.35	4.09	3.68	4.26	6.95	4.21	3.28
1965	4.04	3.64	4.33	4.01	7.06	3.60	3.02
1966	4.13	3.71	3.89	3.75	6.84	3.60	4.08
1967	4.09	4.00	4.01	3.93	7.22	5.03	4.28
1968	4.76	4.73	4.61	4.35	8.79	4.94	5.35
1969	4.65	6.45	4.65	4.23	8.80	4.67	5.44
1970	4.35	4.45	4.11	3.79	8.62	4.70	5.89
1971	3.94	3.56	4.16	3.20	7.03	4.79	5.40
1972	3.59	3.24	3.93	3.20	5.54	4.68	4.16
1973	3.18	2.70	3.03	2.70	5.05	3.64	3.96
1974	3.17	2.49	3.01	2.51	5.58	3.46	3.05
1975	2.97	2.41	2.71	2.38	6.64	3.58	3.18
1976	3.17	2.66	3.05	2.86	7.92	4.36	3.72
1977*	2.94	2.61	2.95	2.90	8.55	4.02	3.81
	Official Tourist Rate of a Ruble (In Units of Local Currency per Ruble)						
Rate Used to Construct the Table	0.78	9.65	3.20	13.12	15.30	8.30	1.00
Effective Rate for Residents	0.78	9.65	3.20	14.75	17.60	8.30	1.00

Source: see Table 1.

Table 3. Tourist Rates of a U.S. Dollar (In Units of Local Currency per U.S. Dollar)

Year	Bulgaria (leva)	Czechoslovakia (koruna)	East Germany (mark)	Hungary (forint)	Poland (zloty)	Romania (leu)	USSR (ruble)
1950	n.a.	n.a.	2.22	11.74	n.a.	n.a.	0.40
1951	n.a.	n.a.	2.22	11.74	4.00	n.a.	0.40
1952	0.68[a]	n.a.	2.22	11.74	4.00	6.00[v]	0.40
1953	0.68	7.20[i]	2.22	11.74	4.00	6.00	0.40
1954	0.68	7.20	2.22	11.74	4.00	6.00	0.40
1955	0.68	7.20	2.22	11.74	4.00	6.00	0.40
1956	0.68	7.20	2.22	11.74	4.00	6.00	0.40
1957	0.952[b]	14.36[j]	2.22	11.74	24.00[t]	12.00[w]	1.00[α]
1958	0.952	14.36	4.20[n]	23.48[r]	24.00	12.00	1.00
1959	0.952	14.36	4.20	23.48	24.00	12.00	1.00
1960	0.952	14.36	4.20	23.48	24.00	15.00[x]	1.00
1961	0.952	14.36	4.20	23.48	24.00	15.00	0.90[β]
1962	1.17[c]	14.36	4.20	23.48	24.00	15.00	0.90
1963	1.17	14.36	4.20	23.48	24.00	15.00	0.90
1964	2.00[d]	28.80[k]	4.20	23.48	24.00	18.00[y]	0.90
1965	2.00	16.20[l]	4.20	23.48	40.00[u]	18.00	0.90
1966	2.00	16.20	4.20	23.48	40.00	18.00	0.90
1967	2.00	16.20	4.20	23.48	40.00	18.00	0.90
1968	2.00	16.20	4.00[o]	30.00[s]	40.00	18.00	0.90
1969	2.00	16.20	3.66	30.00	40.00	18.00	0.90
1970	2.00	16.20	3.66	30.00	40.00	18.00	0.90
1971	1.85[e]	14.92[e]	3.27[e]	27.63[e]	36.80[e]	16.00[e]	0.829[e]
1972	1.85	14.96	3.20[p]	27.63	36.80	16.00	0.820
1973	1.65[f]	13.39[f]	2.70	23.38[f]	33.20[f]	14.38[f]	0.754
1974	1.20[g]	10.06[m]	2.40	23.38	33.20	12.00[z]	0.730
1975	0.97[h]	10.15	2.62	20.45	33.20	12.00	0.758
1976	0.959	9.98	2.36	20.65	33.20	12.00	0.748
1977*	0.957	9.98	2.40	20.60	33.20	12.00	0.746

a - May 12, b - July 29, c - Jan. 1, d - Feb. 1, e - Dec. 24, f - Feb. 13-15, g - Nov. 1, h - tourist rate abolished on Nov. 1, i - June 1, j - July 1, k - May 20, l - Jan. 1, m - Jan. 1, n - valuta mark established on Jan. 7, o - June 11, p - Jan. 31, r - April 1, s - Jan. 1, t - Feb. 11, u - new rate established originally only for exchange over $ 50, later for any amount on June 1, v - Jan. 28, w - July 1, x - June 1, y - June 15, z - Oct. 2, α - April 1, β - currency exchanged and tourist rate abolished on Jan. 1.

Source: Pick's Currency Yearbook, various issues. The Bulgarian, Romanian, and USSR data were adjusted for the effect of currency reforms (Bulgaria in 1962, Romania in 1952, USSR in 1961).

Table 4. Tourist Rates of a U.S. Dollar (In Ruble Equivalents per U.S. Dollar)

Year	Bulgaria	Czecho-slovakia	East Germany	Hungary	Poland	Romania	USSR
1950	n.a.	n.a.	0.694	0.895	n.a.	n.a.	0.400
1951	n.a.	n.a.	0.694	0.895	0.261	n.a.	0.400
1952	0.872	n.a.	0.694	0.895	0.261	0.723	0.400
1953	0.872	0.746	0.694	0.895	0.261	0.723	0.400
1954	0.872	0.746	0.694	0.895	0.261	0.723	0.400
1955	0.872	0.746	0.694	0.895	0.261	0.723	0.400
1956	0.872	0.746	0.694	0.895	0.261	0.723	0.400
1957	1.221	1.488	0.694	0.895	1.569	1.446	1.000
1958	1.221	1.488	1.312	1.790	1.569	1.446	1.000
1959	1.221	1.488	1.312	1.790	1.569	1.446	1.000
1960	1.221	1.488	1.312	1.790	1.569	1.807	0.900
1961	1.221	1.488	1.312	1.790	1.569	1.807	0.900
1962	1.500	1.488	1.312	1.790	1.569	1.807	0.900
1963	1.500	1.488	1.312	1.790	1.569	1.807	0.900
1964	2.564	2.984	1.312	1.790	1.569	2.169	0.900
1965	2.564	1.679	1.312	1.790	2.614	2.169	0.900
1966	2.564	1.679	1.312	1.790	2.614	2.169	0.900
1967	2.564	1.679	1.312	1.790	2.614	2.169	0.900
1968	2.564	1.679	1.250	2.287	2.614	2.169	0.900
1969	2.564	1.679	1.144	2.287	2.614	2.169	0.900
1970	2.564	1.679	1.144	2.287	2.614	2.169	0.900
1971	2.372	1.546	1.022	2.106	2.405	1.928	0.829
1972	2.372	1.550	1.000	2.106	2.405	1.928	0.820
1973	2.115	1.388	0.844	1.782	2.170	1.733	0.754
1974	1.538	1.042	0.750	1.782	2.170	1.446	0.730
1975	1.244	1.052	0.819	1.559	2.170	1.446	0.758
1976	1.229	1.034	0.738	1.574	2.170	1.446	0.748
1977*	1.227	1.034	0.750	1.570	2.170	1.446	0.746

Source: Calculation by the author on the basis of Tables 2 and 3.

Table 5. Ratios of Black Market Exchange Rates to Tourist Rates of a U.S. Dollar

Year	Bulgaria	Czecho-slovakia	East Germany	Hungary	Poland	Romania	USSR
1950	4.22	10.32	15.83	4.26	6.42	3.87	9.37
1951	3.67	10.06	10.79	3.40	6.33	3.08	6.23
1952	4.66	10.73	9.55	3.97	5.84	4.17	5.88
1953	4.80	6.76	11.75	4.12	6.83	4.32	5.72
1954	5.34	5.33	8.46	4.37	10.92	4.20	5.48
1955	5.59	6.05	10.09	4.47	17.72	4.78	5.14
1956	5.35	5.97	8.46	5.31	21.09	4.65	5.28
1957	5.52	4.91	8.05	8.34	6.49	3.99	4.46
1958	3.70	3.13	3.91	2.61	5.47	2.75	3.09
1959	3.30	2.65	3.75	1.84	4.32	2.48	2.70
1960	3.42	2.56	3.71	1.82	4.12	2.11	3.85
1961	3.23	2.08	4.71	1.84	3.43	1.72	2.53
1962	3.70	2.18	3.82	1.84	4.25	1.94	3.97
1963	3.56	2.58	3.42	2.02	4.28	2.16	3.88
1964	1.76	1.73	2.81	2.38	4.43	2.10	3.64
1965	1.58	2.17	3.30	2.24	3.24	1.66	3.36
1966	1.61	2.21	2.97	2.09	2.61	1.66	4.53
1967	1.60	2.38	3.05	2.20	2.76	2.32	4.76
1968	1.85	2.82	3.61	1.90	3.36	2.28	5.94
1969	1.82	3.84	4.06	1.85	3.37	2.15	6.04
1970	1.70	2.65	3.59	1.66	3.30	2.17	6.54
1971	1.54	2.12	4.07	1.40	2.69	2.21	6.00
1972	1.51	2.09	3.92	1.52	2.30	2.43	5.07
1973	1.48	1.92	3.51	1.48	2.30	2.07	5.25
1974	1.57	2.39	4.01	1.41	2.57	2.39	4.18
1975	2.00	2.29	3.31	1.53	3.06	2.48	4.20
1976	2.58	2.57	4.13	1.82	3.65	3.02	4.97
1977*	2.39	2.52	3.94	1.84	3.94	2.78	5.11

Source: Calculation by the author on the basis of Tables 1 and 3.

Footnotes

[1]The author gratefully acknowledges numerous helpful comments on the first draft of this paper from Professors Zdeněk Drábek (University College of Buckingham, England) and Michael Marrese (Northwestern University) while visiting the University of British Columbia.

[2]In the mid-1970's in Czechoslovakia a tourist to the West could receive a maximum of U.S. $ 120 per trip ($ 6.00 per day) every three years; in Hungary the allocation ammounted to about $160 per trip every three years ($ 225 in 1978, $ 220 standard allowance plus $ 55 special allowance at a 40% surcharge in 1979); in Poland the allocation amounted to $ 130 per trip every three years; and in Romania the allowance was limited to $ 70 for one trip annually.

[3]Some of these effects are discussed in Michael Marrese, "The Evolution of Wage Regulation in Hungary", forthcoming in Paul Hare and Hugo Radice, eds., The Hungarian Economy: 10 Years On (London: George Allen & Unwin, 1980).

[4]The law is not enforced only in the case of foreign exchange transactions between certain resident foreign nationals, e.g., diplomats.

[5]Figure 1 is a standard description of the behavior of a monopsonist: see, e.g., Jack Hirschleifer, Price Theory and Applications (Englewood Cliffs, N.J.: Prentice Hall, 1976), pp. 369 - 377. In the absence of exchange-rate discrimination, the marginal cost of a unit of foreign exchange is the sum of two elements: E is the payment for the additional unit itself, and $(dE/dQ).Q$ is the expense due to the increased price (exchange rate) paid for all units previously purchased. The optimality condition for the monopsonistic agency is equality between the marginal benefit of an extra unit of foreign exchange (represented by the demand curve $D_{\$}$) and its marginal cost. The slope of the supply curve of foreign exchange in Figures 1 and 2 is assumed positive and constant for simplicity only. The author is well aware that in reality the slope will vary and the supply curve is likely to have at least three segments: an inelastic portion at the bottom representing the relatively low price (exchange-rate) elasticity of demand for travel on the part of close relatives and friends, a more elastic portion in the middle representing the greater price elasticity of demand for travel on the part of an average tourist, and finally an inelastic upper portion representing definite limits on the size of the potential pool of tourists.

[6]The following minimum exchange per tourist per day in U.S. dollars or their hard-currency equivalent was required in Eastern European countries: Bulgaria -- $ 10 (1976); Czechoslovakia -- $ 7 (1976);

East Germany -- DM 5 - 10 in East Berlin and DM 10 - 20 elsewhere (1973 - 75, minimum requirement abolished in mid-1975); Hungary -- $ 5 (1976, minimum requirement abolished in 1978); Poland -- $ 10 (1976); Romania -- $ 10 (1976); USSR -- an implicit requirement well in excess of $ 10 since most tourists arrive in organized tours with prepaid accommodation, transportation, and some food.

[7] E.g., bonus tourist rate was used in Poland since 1965 when the state travel agency Orbis began to issue the so-called "Bonus-cupon" for hard currency exchange over U.S. $ 50. An example of the latter method is the one used in Czechoslovakia where tourists can purchase hard-currency coupons called Tuzex-koruna (TK) or use their hard currency directly in Tuzex stores. Thus, e.g., in 1976 the basic tourist rate was Kčs 10.15 = U.S. $ 1, but TK 5.80 = U.S. $ 1 for exchange over U.S. $ 7 per day. The black market rate of a TK was on the average about Kčs 4 - 6, thus resulting in a theoretical bonus rate Kčs 23.20 - 34.80 for U.S. $ 1. In any case, the purchasing power of TK 5.80 in Tuzex stores was considerably in excess of what could be purchased in regular stores for Kčs 10.15.

[8] Although it might occasionally be profitable for the State Banks to sell hard currency on the black market through its agents, all evidence seems to point out that the State Banks are possibly involved only in buying of hard currency on the black market (see discussion below).

[9]It would not be overly difficult to set up the entire operation in such fashion that these dealers do not in fact even know for whom they are working. An employee of the State Bank or the Ministry of Interior could be set up as a "wholesale dealer" to whom all "retail dealers" have to sell their hard currency purchases if they want to continue operating. Only the wholesale dealer will then know who the ultimate buyer of hard currency purchased on the black market is. Those retail dealers who do not follow the rules are simply arrested and charged with black market activity.

[10]E.g., one of the most sophisticated techniques used by Eastern European black market hard-currency dealers is to look for Western bus tours shortly after they have crossed the border. A pair of black market dealers travels in a passenger car and passes the bus with tourists flashing a suggested black market exchange rate on a card. The driver of the bus (also a foreigner) asks the passengers if they want to change their money. If sufficient interest is present, the transaction will take place in a nearby rest-stop or even more likely while the bus is in motion, after one of the black market dealers boards the bus.

[11]However, repeated rumors about the magnitude of bribes offered by black market dealers to avoid prosecution/conviction circulate in Eastern Europe. The sums involved are reported to reach as much as an equivalent of U.S. $ 40,000 (at the black market

exchange rate), while individuals involved may have as high a rank as that of an Assistant Secretary in the Ministry of Interior.

[12]This author had the opportunity to observe the operation of a large-scale black market foreign exchange dealer whose "spot" was right in front of Staroměstský orloj (the Old Town Hall Clock) in Prague over a period of three years (1967 - 1970). The dealer could be seen going regularly about his business for three years without any apparent problems. Any other black market dealer or an "amateur" who would have encroached on the first dealer's territory was somehow persuaded to leave (probably either threatened with an arrest or the fists of the two companions of the first dealer who were usually on the watch nearby). Since the competition never offered resistance, the author became increasingly persuaded that this dealer was in some way "protected" and probably enjoyed an immunity from prosecution. The dealer used his privileged position to keep what must have been the most lucrative black market spot in the entire city just for himself.

[13]Nationals of these three countries can occasionally travel to the West if they succeed in obtaining an allocation of foreign exchange. Since this allocation is hardly sufficient (see footnote 2), they are forced to supplement it by black market purchases of hard currencies.

[14]Chart 1 below illustrates the potential gains from this activity especially in the case of Poland. The existence of cross-country arbitrage in black market in hard currencies implies the existence of a black market in currencies of the Eastern bloc in Poland (e.g., tourists from Czechoslovakia can sell Czechoslovak crowns on the black market at about 100 percent premium over the official tourist rate) and black markets in Polish zlotys in other Eastern European countries (e.g., particularly in the Ostrava region near the Polish border zlotys can be bought on the black market for around half of the official rate). Since the black markets in Eastern currencies mostly mirror the differences in black markets in hard currencies, they are not discussed in this paper at greater length.

[15]See, e.g., various issues of Franz Pick, ed., Pick's Currency Yearbook, Pick Publishing Corporation, New York, published annually or every two years. This is repeatedly asserted in sections dealing with each country's black market operations.

[16]See International Newsweek, July 16, 1979, special section on East Germany.

[17]An interesting question arises why the East German government chose not to sell East German marks directly to West German and West Berlin banks or currency dealers and obtain a better exchange rate. The Swiss banks must have been chosen as partners in this transaction because of their discreteness and willingness to take

part in any profitable transaction irrespective of its ethical implications. On the other hand, West German bankers could have been expected to leak this information to the press sooner or later and the East German government must have been very eager to prevent a well-publicized scandal in this matter in the West German press.

[18] E.g., something like this was happening in Hungary after the influx of Austrian tourists, once Hungary abolished its visa requirements for Austrians. In spite of rapidly rising tourist traffic from the West, in 1978 the government hard-currency receipts were only 1 percent over what they were in 1977. See Hungarian Situation Report/4, February 19, 1979, pp. 12 - 13.

[19] In a black market transaction a buyer of hard currency considers only the private cost of the purchase. However, since visiting Western tourists consume many subsidized goods and services: food except restaurant food (not subsidized since July 1979), public transportation, theatre shows and exhibitions, and certain consumer goods which are relatively cheap, the social cost of a black market transaction is considerably higher.

[20] See footnote 15.

[21] For year 1977 only the period January-March was available. Whenever necessary, the data were adjusted for the effects of currency reforms.

[22] Up until the end of 1971 the Polish State Bank bought and sold Eastern currencies at an equivalent of Zl 15.30 per one ruble. In order to discourage Polish tourism to Eastern Europe and reduce the Polish travel deficits in the East (and possibly also to accommodate the requests by the governments of Czechoslovakia, East Germany and Hungary) a 30 percent surcharge on purchases of foreign exchange for travel to the rest of Eastern Europe was imposed in January 1972. At the end of April 1972 the surcharge was reduced to 15 percent, but in April 1974 a special 36 percent surcharge was imposed on purchases of East German marks.

[23] Eastern European and USSR CPIs were taken from Richard Portes, "The Control of Inflation: Lessons from East European Experience", Discussion Paper No. 44, Department of Economics, Birkbeck College, University of London, April 1976, p. 19 for the period 1955 - 1974 and updated through 1977 by the author on the basis of Eastern European and USSR Statistical Yearbooks. The data can be obtained from the author on request.

[24] In part this may also be attributable to the fact that the U.S. CPI includes many commodities and services characterized by an above-average inflation in the 1970's (e.g., fuels, housing, medical care, etc.) which are not bought by Eastern Europeans in hard-currency stores. If a more realistic rate of Western inflation was assumed (covering primarily goods bought in hard-currency stores), the deviation of the adjusted black market

exchange-rate index from the PPP line during the period 1975 - 77 may be less dramatic.

[25] In the sense that the tourist rate of a dollar has been set at a higher percentage of the black market rate than in other countries. It would be extremely difficult to figure out which Eastern European country is "the cheapest" for Western tourists either at the tourist rate of exchange or at the black market rate of exchange.

[26] 1976 Pick's Currency Yearbook, p. 226.

[27] Ibid., p. 476.

[28] Data on hard-currency tourist receipts and unrequited transfers are based on balance-of-payments statistics released in loan memoranda in the West by the Hungarian National Bank and the Polish State Bank, and data supplied by the Romanian State Bank to the IMF. In the case of Hungary, also material mentioned in footnote 18 was used to estimate her hard-currency earnings from tourism.

[29] According to the First Deputy Minister of Finance Marian Krzak, the turnover of hard-currency stores in Poland in 1975 was around U.S. $ 180 million (Kultura, November 21, 1976). With a probable growth rate of around 30 percent a year, the turnover must have been close to $ 300 million in 1977. This indirectly supports the conclusion that an estimate of the volume of transactions

in the black market in hard currency of around \$ 320 million in 1977 is quite plausible, once we take into account other reasons for demand for hard currency aside from its use in hard-currency stores (travel to the West, transactional demand in the second economy, hoarding, etc.).

[30]A similar estimate of the volume of transactions in the black market in hard currencies in Czechoslovakia based on less reliable data could also be made. The author estimates the Czechoslovak hard-currency receipts from tourism in 1977 at \$ 67 million, implying that an additional \$ 22 - 34 million was exchanged on the black market. The Czechoslovak Statistical Yearbook (1978 issue, p. 510) presents an estimate of net income of residents from abroad (West) of about \$ 109 million (Kčs 1545 million divided by an exchange rate of Kčs 14.175/U.S. \$ 1, estimated by multiplying the official exchange rate Tuzex koruna 5.67/U.S. \$ 1 by the official conversion rate Kčs 2.50/ Tuzex koruna 1). Based on our assumptions, this would imply that an additional \$ 55 - 109 million is likely to have arrived into the country in the form of handpayments and cash gifts. This would put the scale of black market hard-currency transactions at \$ 77 - 143 million, with a mean estimate of \$ 110 million, or \$ 7.32 per capita and 1.3% of an annual gross income of an average person in the labor force.

Taken together, the volume of black market hard-currency transactions in 1977 in Czechoslovakia, Hungary, Poland, and Romania is thus estimated at about $ 550 million (mean estimate). Since the rest of the Eastern bloc must account for another $ 450 - 670 million (Bulgaria -- $ 50 - 70 million, East Germany -- $ 200 - 300 million, USSR -- $ 200 - 300 million), the mean estimate of the volume of black market hard-currency transactions for the entire Eastern bloc in 1977 would be around $ 1.1 billion, i.e., about 3.5 percent of the volume of total imports of the bloc from the developed West.