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FINNISH EXPERIENCES IN A DUAL TRADE REGIME

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ABSTRACT: This paper describes the development of Finnish-Soviet trade and its structure and investigates the effects of oil price changes on the bilateral trade and on the Finnish economy.

KEYWORDS: Bilateral trade, oil prices, Finland, Soviet Union

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TIIVISTELMÄ: Tutkimuksessa selvitetään Suomen ja Neuvostoliiton välisen ulkomaankaupan kehitystä ja rakennetta, erityisesti öljyn hintakehityksen vaikutuksia maiden väliseen kauppaan ja Suomen taloudelliseen kehitykseen.

ASIASANAT: Bilateraalinen kauppa, öljynhinta, Suomi, Neuvostoliitto

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FINNISH EXPERIENCES IN A DUAL TRADE REGIME

by

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Preliminary version

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Summary

Finland conducts one-fifth of her trade with Soviet Union under a payments agreement aiming at balancing the accounts annually or within a five-year period. As oil is the largest item in Finnish bill from Soviet, value of imports fluctuates with oil price changes and the burden of adjustment falls on volume of Finnish exports. This system has in the 70's and 80's acted in a countercyclical way: if there is a decrease in exports to the Western European markets due to rising oil prices, demand for Finnish Export rises on the Soviet side, and vice versa - falling oil prices curtail imports into the Soviet Union but they also stimulate demand on the Western market. As the Soviet Union gets most of its hard currency as an oil-producing country, this seems to be the overall pattern of imports and exports in Soviet trade, generated by fluctuations in oil revenues, rather than a pattern specific to bilateral trade only.

1. Introduction

Finland is an open market economy, with her foreign trade amounting to some 30 per cent of GDP. About one-fifth of total commodity trade has been conducted with the Soviet Union under a bilateral payments agreement. In the four post-war decades this trade has created its own expansion path and specific structure, setting its mark on the Finnish economy and the trade policy options as well. As oil and its derivatives are the largest item in Finnish import bill from the Soviet Union and this trade is conducted at world market prices, the value of imports has in the 70's and 80's greatly fluctuated with oil price changes. Volatility of this trade has put much pressure on the bilateral payments system, as the burden of adjustment principally falls on the volume of Finnish exports. Some features which have moved the trade away from strict bilateralism have been introduced in recent years.

Our paper first discusses the characteristics of the Finno-Soviet bilateral payments system and the structure of trade in order to explore if the pattern is different in some important respects from that produced under a multilateral, convertible trade and payments system.

Study of the trade regime and structure is prerequisite to discussing the direct and indirect effects on public finance and economic policies. This may be an opportune time for a review and discussion of the regime, given that recent developments and debates in Moscow and elsewhere in the spirit of perestroika would suggest that the system be revised if anything towards more flexibility.

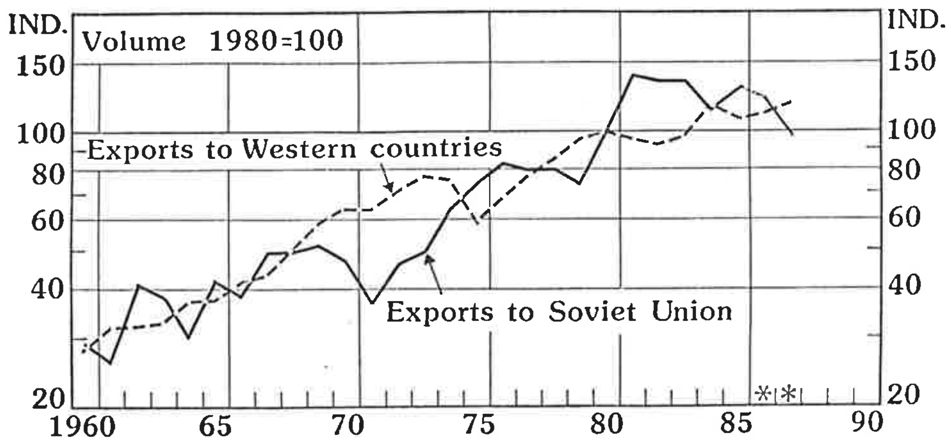
2. Description of the Finno-Soviet Trade

Neighbouring countries Finland and the Soviet Union have a long tradition in mutual trade. When Finland was an autonomous Grand Duchy under the Czar in the nineteenth century, the share of Russia in her foreign trade was about two-fifths. In the interwar period the share dwindled into insignificance, but after the war Soviet Union emerged as an important trading partner for Finland. The war reparations to be paid to Soviet Union gave a certain impetus in this direction.

The war reparations stipulated by the peace treaty were to be paid over the period 1945 to 1951. They amounted to about 2 to 6 per cent of GDP annually, and about 6 to 17 per cent of total public expenditure. In comparison with other known cases of war reparations these are rather high figures: Charles B. Kindleberger (1987) estimated that the real burden per capita was about ten times as high as that of the French reparations paid to Germany after the war in 1870. The Finnish reparations were to be paid in goods out of current production: mainly machinery and equipment, vessels and cables, with only a quarter consisting of traditional forest industry products. This task directed resources to the metal industry, thus intensifying the structural change: the share of metal and engineering industry products in total exports has increased from 4 per cent in 1950 to 40 per cent in 1987.

In the beginning of 1950s the share of Soviet Union in total commodity trade was about 20 per cent, but it consequently declined to just over 10 per cent before the first oil crises.

Figure 1. Commodity exports to market economies and centrally planned economies (of which Soviet Union about nine-tenths), volume index (1980=100)



Graphs indicate that a certain countercyclical pattern emerges since end-1960s: exports to Soviet Union soared in the oil crises of 1974 and 1980 while the demand was slack in the Western markets. We are now back in the relative shares prevailing in the early 1970s.

Since 1951 trade between Finland and the Soviet Union has been governed by the five-year framework agreements on the exchange of goods and on payments, and of annual protocols on exchange of goods. The general principle underlying this trade is that the prices of goods exchanged are to be based on world market prices, and decisions to buy and sell are made by individual companies and Soviet foreign trade corporations. There is a ministerial-level

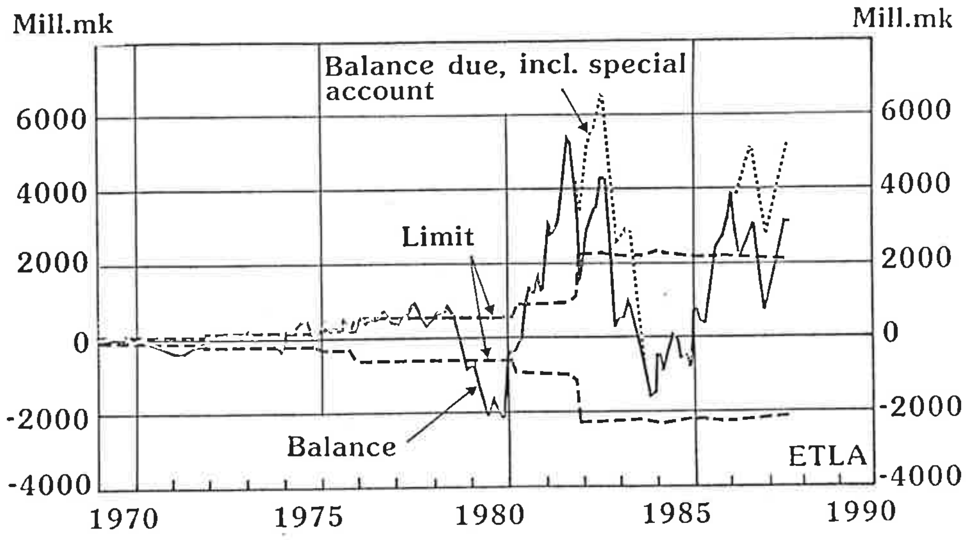
Economic Commission to assure that problems and prospects are discussed on a sufficiently high level.

The most-favoured-nation clause was agreed upon in 1947. In 1960 the two countries entered a customs agreement in which Finland committed herself to reduce duties in her trade with the Soviet Union at the same rate as with the EFTA countries, with which a free trade agreement was concluded in 1961.

The Finnish authorities have applied rather strict rules of origin to Finnish exports to Soviet Union: minimum domestic contents of 80 per cent. Given the status of Finland as a border country between the two regimes, this is done to prevent any unintended leaks from one customs area to the other. This gives a certain boost to domestic producers of input materials.

The payment system is bilateral, with the Soviet ruble as the clearing unit of account. The aim is to balance the annual accounts or if this is not possible, the five year accounts. Upper and lower limits for transaction balances are usually agreed upon (see Figure 2).

Figure 2. The balance due on the clearing account between Finland and the Soviet Union (monthly averages).



From time to time marked imbalances occur, which according to payments clauses should be settled by the debtor through payments in convertible currencies or by increasing the debtor's exports. The latter has been frequently resorted to in attempts to restore the balance. But when this is not sufficient, also the other side's exports will have to be curtailed.

It was reasonably easy to maintain balance before the oil crisis. Accommodating small increments or reductions to exports or imports was possible. Sharp fluctuations in oil prices made balancing more problematic. After the first and second oil price rise, the ensuing deficit on bilateral account gave a boost to Finnish exports: in order to pay the higher import bill, the Finnish industry was called upon quickly to increase its deliveries to Soviet Union in face of seemingly insatiable Soviet demand. The needed flexibility was there.

But the reverse has not been true when oil prices are coming down - particularly after the 1986 decline it has not been easy to increase imports from Soviet Union to fill the gap. Finnish export to Soviet had to be drastically reduced, in a period of two years by about one third. Order books of shipbuilding industries have been shrinking. Many a producer can be caught unawares if he hasn't turned in time to other markets for compensation.

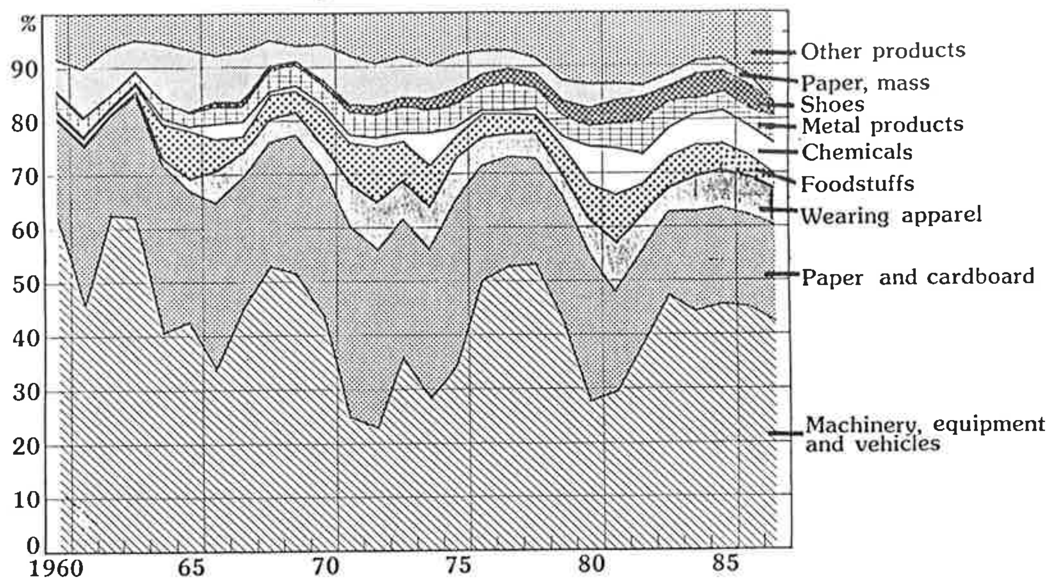
Falling oil prices thus cause a glut with Finnish exports to Soviet Union and a surplus on bilateral account. Consequently Finland finances the excess imports of the Soviet Union. A part of the surplus has been twice consolidated and transferred to a special account bearing an undisclosed rate of interest, in order to remove a "structural" element from this essentially short-term financing device. But this is no fundamental solution.

At the same time, the present situation measures very concretely the importance of various Finnish export items to the Soviet economy. Quotas of consumption goods exported from Finland can be drastically reduced, causing acute adjustment problems to the producers concerned and some inconvenience to the Soviet consumers. Strategic deliveries have better chances to continue at previous levels and for them also other methods of financing have been used.

3. Structure of trade

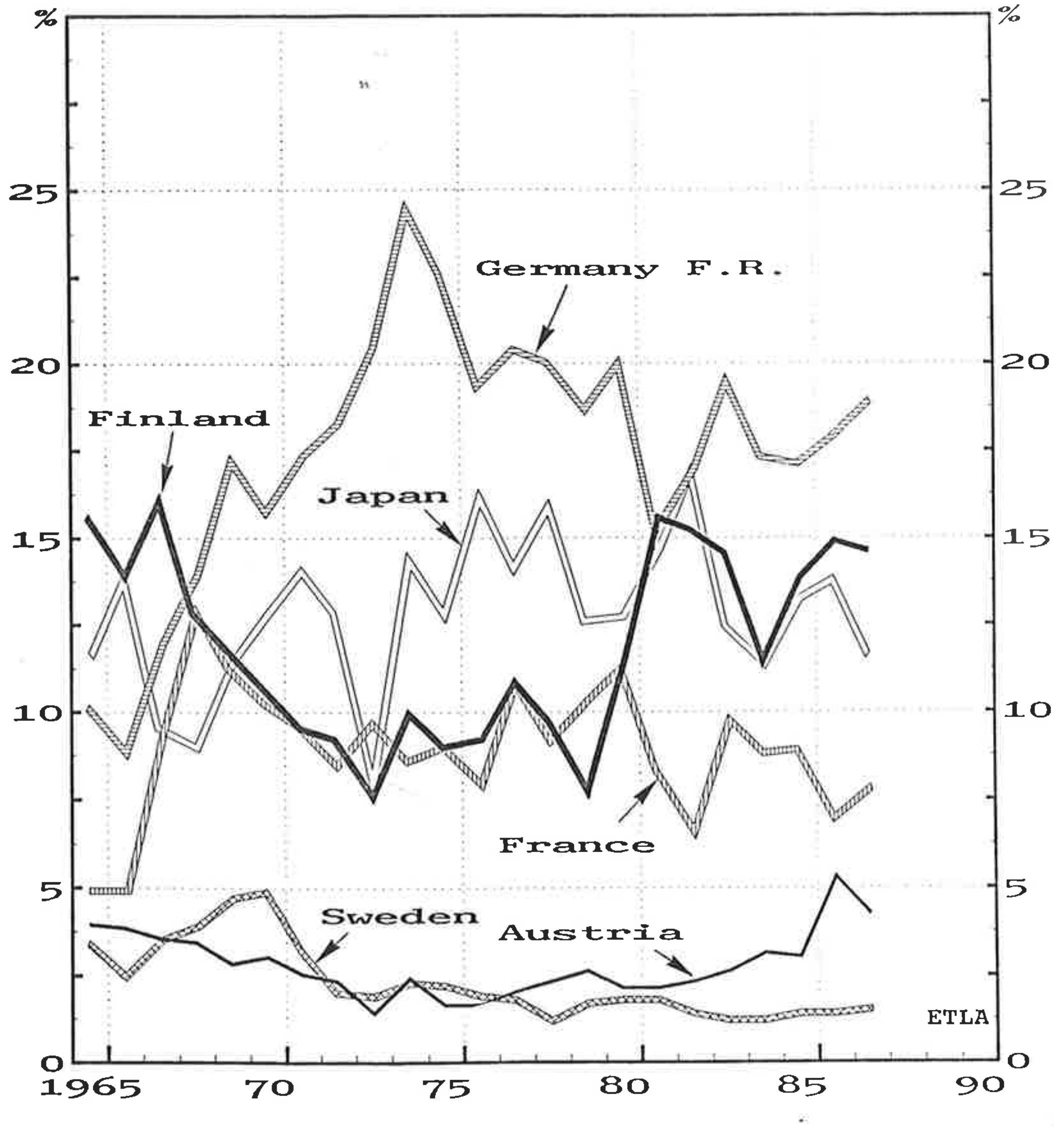
Distribution of Finnish exports by categories is shown in figure 3. Machinery and transport equipment dominate the scene, though with considerable fluctuations: ship deliveries often take place during the early part of the five-year framework period. The share of forest industry products has steadily declined to about 15 per cent at present. The shares of wearing apparel, leather industry and the chemical industries were increasing until 1986.

Figure 3. The distribution of Finnish exports to the Soviet Union by categories, (SITC-classification)



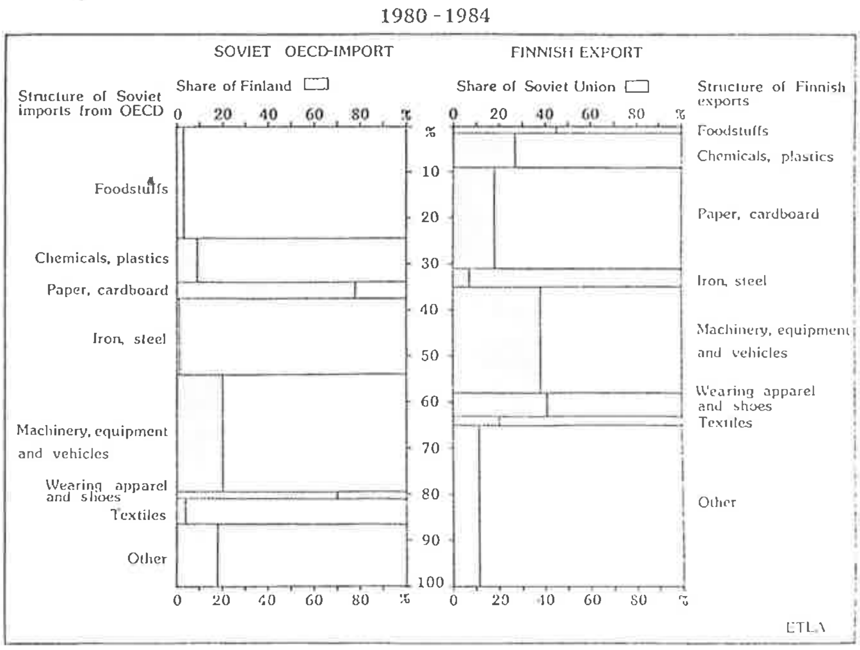
The shares of Finland and some other countries in the total imports by Soviet Union from the OECD area are shown in figure 4. Finland's share decreased until the oil crisis and remained rather stable over the turbulent period of the 1970s. We cannot detect any pattern different from other countries of import and specially attributable to the bilateral regime. It had not prevented the share from falling in pre-1972 period, it didn't increase the Finnish share in connection of the first oil crises; but it may have contributed slightly to the restoration of the share to levels of 1960s, in particular to the upward shift in 1979 to 1983 after the second oil crisis.[1)]

Figure 4. Market shares of Finland and selected other countries in Soviet imports from the OECD.



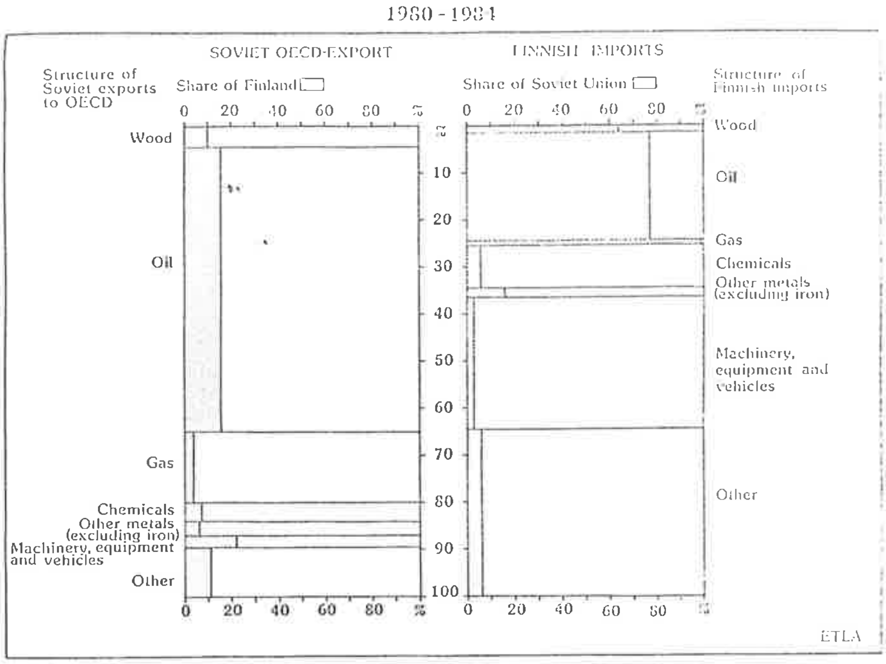
The structure and market shares during the period of high oil prices (1980-1984) of Finnish exports in total OECD exports to the Soviet Union are analyzed in Figure 5 (area on the left). On the right side we indicate the share of the Soviet Union by categories in total Finnish exports. Finland's market shares are especially high in forest industry products and in shoes and wearing apparel. Finland's share in machinery and equipment is also considerable - so far, Finland has been the whole Western supplier of ships, notable ice-breakers to suit harsh climatic conditions and vessels for research purposes, to the Soviet market.

Figure 5. The structure of Soviet imports from the OECD area and the shares of Finland by categories (area on the left) and the structure of Finnish exports and the shares therein of Soviet Union (right-hand area) in 1980 to 1984.



Soviet exports to the OECD are dominated by crude oil and petroleum products (Figure 6). This dominance carries over to Finnish imports from Soviet Union, though they are somewhat more diversified. The share of machinery and equipment in Finnish imports from the Soviet Union was slightly above the OECD average. A neighbourship feature is the large share of Soviet timber in Finnish Imports, as raw material for the Finnish forest industry. Since the decrease in oil prices the value share of oil in the Soviet exports has, of course, declined.

Figure 6. The structure of Soviet exports to the OECD area in the period of high oil prices and the shares of Finland by categories, and the structure of Finnish imports and the shares of Soviet Union therein, 1980 to 1984.



4. Production and employment effects of Soviet trade

Alho & al. (1986) contains an input-output analysis of the effects of the Finnish exports to the Soviet Union on the Finnish economy by branches. Both the direct and the indirect production effects of this trade are accounted for. The direct effects arise from exports by the various branches to the Soviet Union. The indirect effects are due to the purchases of inputs by the exporters from other branches, which give rise to production in these branches. Also the effects caused by the fact that production gives rise to the labour incomes, which are then used in consumption, were included in the study. The calculations show that on average the indirect production effects are about as large as the direct ones. The effects on consumption are less than half the direct effects.

Altogether, commodity exports to the Soviet Union employed about 130 000 persons (about 6 % of labour force) in Finland in the early 1980s. This figure was more than twice the corresponding figure at the beginning of the 1970s. If the employment related to exports of services and factor incomes (i.a. employment in transport of goods and in construction projects[2)] in the Soviet Union) is added to this, we come to an estimate of the total employment related to Finnish exports to the Soviet Union of roughly somewhat less than 140 000 persons on average in the first half of the 1980s. The growth in total employment since the late 1970s has been mostly due to increased exports to the Soviet Union and to an increase in public sector employment. Also, the employment caused by exports to Western countries has been able to keep its previous level, but other business sector employment has been persistently below its previous level since the mid-1970s.

The input-output analysis on a branch level revealed, as was to be expected, that the employment effects were concentrated in industry - i.e., in metal industry, and in wearing apparel and leather industries, which are labour intensive branches of production. The analysis rests on the idea that there are ample resources in the economy which can be flexibly employed by the various activities at the ruling rates of reward for the productive inputs. Especially with respect to agriculture it should be noted that in Finland it is a very sheltered sector, whose volume of production depends on policy measures and domestic supply factors to a higher degree than on changes in total demand in the economy. Thus the results concerning employment, produced by the input-output analysis, should perhaps be interpreted in a narrower sense: the figures tell us the number of people employed for exports to the Soviet Union rather than the employment caused by it.

The analysis concerning the share of imported inputs in Finnish production shows that in the 1970s exports to the Soviet Union caused, per unit, somewhat more imports than did exports to the West. The statistical explanation is that exports to Soviet were more concentrated in the metal industry and light industries and less in the forest industry; the share of imported inputs is higher in the former than in the latter category. An expert in bargaining theories would point out that the reciprocal issue of imported inputs is more likely to emerge in bilateral macro-level negotiations than in transaction-wise business agreements on micro level; in the latter, commercial price and quality criteria determine the issue of import contents. But hard evidence is difficult to find, and in the early 1980s this difference all but vanished.

As to the origin of imported inputs, it is interesting to note that exports to the West use more imports from the Soviet Union (28 per cent of imported inputs) than exports to Soviet (20 per cent). There is a natural explanation to this: forest industry, more prominent in exports to West, uses more energy.

5. A macro-economic analysis of the effects of oil crises and the bilateral payments system on the Finnish economy

We have seen that the oil price changes, in connection with the mechanism of bilateral trade, have had certain structural impacts on the Finnish economy in the 1973-88 period. It may be worthwhile to explore the specific role of the bilateral payments system, on one hand, and the role of the oil price changes, on the other, in this sequence of events. We are concerned with short and medium-term impacts on the economy: in the longer run, the economy will adjust itself to external changes in one way or another.

This kind of analysis was carried out by using ETLA's econometric model. The central idea of the analysis is demonstrated in figure 7. By manipulating the error terms of the model the results of the simulation representing the realized values of the inputs (cell 1) were first made identical with the realized values of the endogenous variables (GDP, unemployment, current balance, rate of inflation etc.). The hypothetical "multilateral alternative of trade" was specified to mean that Finland's share in OECD exports to the Soviet Union (excluding imports of grain) would have remained at its 1972 level, i.e., Finnish exports to Soviet Union would have developed as the other OECD countries' exports on the average.

Figure 7. The hypothetical alternatives of the economy in a two-by-two classification.

Oil prices	Payments system between Finland and the Soviet Union	
	Bilateral	"Multilateral"
Oil crises	1. Realized	2.
"No oil crises"	3.	4.

←——→ Comparison of the effects of the payment system

←- - - -→ Comparison of the effects of the change in oil prices

The "no oil crises" alternative was specified in such a way that the relative price of oil in terms of the export prices of industrial products would have increased steadily since 1972 to its 1986 level. Of course, in this specification it was necessary to change many of the exogenous variables in the model. This applied especially to growth and inflation in the Western economies. The former would have been clearly higher and inflation slower in this alternative, in comparison with the actual course of events. Using the estimates of the OECD and our own econometric calculations, we came to the rough estimate that the growth of industrial production in Finland's Western export markets would on average have been some one percentage point higher per annum, and the inflation rate (rise in the import prices of the Western economies) would have been some three percentage points lower than they actually were.

Comparison between cells 1 and 3 showed clearly that "no crises" would have been a better alternative for Finland. Mainly because of the terms of trade effect and sluggish growth in the main export markets, the overall effects of the oil crises have certainly been harmful to Finland. It should be noted, however, that the Finnish export prices rose quite rapidly in the 1970s and 1980s, and so the worsening in the terms of trade was less in Finland than in many other Western economies.

In the "oil crises" alternative exports to the Soviet Union have increased much more than in the "no oil crises" alternative and this has to some extent compensated for the harmful effects of the oil price increases. However, it should be understood that this increase in exports to Soviet Union would have been very similar both in the (realized) bilateral alternative and in the (hypothetical) multilateral alternative. As was to be expected from market share developments, Finland's macroeconomic performance was in the bilateral "oil crises" alternative somewhat better after the second oil crisis in the early years of the 1980s than in the "multilateral" alternative.

6. Implications for the public sector

Any trade regime will (i) cause direct administrative costs of maintaining the appropriate organisation and institutional facilities. These are in the Finno-Soviet case equivalent to normal costs of maintaining commercial relations with the worlds community. If the regime includes subsidized trade, (ii) compensatory financing to this effect is needed. This is not the case in the Finno-Soviet trade, as it is and must be conducted on a commercially viable basis. But most important, in particular in the 70's and 80's, have been (iii) the indirect employment, cost and revenue effects due to the macroeconomic consequences of the Finno-Soviet trade.

When the balance due on the clearing account exceeds or falls short of the agreed limits, an administrative problem arises for the authorities.[3)] There would be less problems if the surplus/deficit carried a normal commercial rate of interest. In that case it is equivalent to any saving/investment transaction and to be treated as such. But if the interest rate is zero or below going rate, the creditor country subsidizes the financing of the import excess of the debtor country.

For the purposes of fiscal and economic policies, it is interesting to explore the role of the bilateral trade regime in economic growth and stabilization.

It is the accepted knowledge that international trade is one of the principal factors behind economic growth. In the postwar industrial society, trade grew at an annual rate of 7 per cent and the GDP, 4 per cent. Trade opens up new markets, facilitates the diffusion of new ideas and applications, and promotes the functioning of the financial markets.

Bilateral trade is, on one hand, rather conservative; this may be more due to the central planning system rather than the trade system. Some analysts have pointed out that the purchasing agencies in the socialist countries feel safe in buying the same commodities and intermediate goods as the year before, given that a plan often repeats its predecessor.[4)]

The goal of balancing the accounts may, in the average, be a contracting factor rather than the contrary. We have seen that a disequilibrium can be corrected in various ways: 1) increasing exports of the deficit country, 2) decreasing exports of the surplus country, 3) settling the debt in convertible currencies, 4) transferring a permanent slice of the surplus/deficit to interest-bearing capital account, or 5) any other device, such as recent deliveries of trading oil from the Soviet Union to Finland, which are practically equivalent to settlement in hard currencies. In the average, reduction of exports and imports may be more dominant than action to the contrary.

We have noted above that, the employment effect of the Finno-Soviet trade has been positive, in the sense that it has stabilized total employment. Correspondingly, it has alleviated the cost of employment policies. But the cyclical elements of the system may be more important than the secular ones.

Thus, it has been argued that the Soviet market provides a kind of insurance for Finland against fluctuations in oil trade. If oil prices rise, the system facilitates the adjustment: instead of having to boost exports in general in face of slack markets, it is easier to increase exports to the expanding Soviet market due to higher export earnings. The Soviet market does indeed expand, contrary to what some Western markets do when demand is slack due to higher oil prices. This alleviates the rise in unemployment and drop in Government revenues, especially when price changes come unexpectedly.

In times of falling oil prices, on the other hand, a country like Finland does not enjoy unmitigated success: the macroeconomic pleasure of having to pay less for the same volume of energy is dampened down by the output cuts due to decrease in export to Soviet Union. Ultimately, it is the purchasing power and propensity to import of the Soviet Union as a function of oil revenue, which determines the outcome of trade, rather than the nature of the bilateral trading system as such. The Soviet Union, in this connection, could be viewed as an oil-producing country with a high capacity of import absorption.

Export guarantees are nowadays part and parcel of export promotion policy in all countries. They are available for a multitude of purposes: to cover political risks, such as changes in repatriation rights or foreign currency regimes; commercial risks such as bankruptcies or other defaults by the buyers; letter of credit risks by the banks; financing risks entailed by long delivery periods; to serve as a security for financing the seller or the buyer; and to compensate for cost rises due to domestic inflation. This category of guarantees applies primarily to products of heavy engineering industry, with long gestation periods, and likewise to some construction projects.

In Finland as in other countries, these guarantees apply to all countries and all trade. Moreover, political or commercial risks as such are considered to be negligible in the Finno-Soviet trade, given that government enterprises or agencies usually act as agents. But at a time a particular issue arose in accomodating free market trading principles (with overt inflation) to those of centrally planned economies (with officially hardly any inflation).

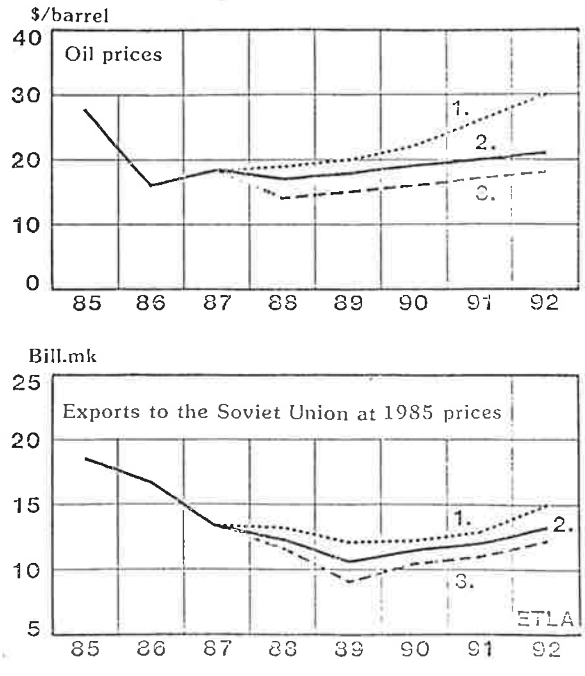
A principle brought out into open by the Soviet negotiators was that they are paying for real goods, not for a Western inflation; nominal sums given in the original contract were to be honoured. The seller, on his part, would consider an unforeseen inflation as a force majeure to warrant an index clause. - In the period from 1964 to 1976, some 2.2 billion Finnmarks were paid out as such guarantees (all countries included). The calculations were beset with difficulties, and with the inflation subsiding, this form of guarantee has been less and less resorted to. But they may have fulfilled a function at a time: to shelter the exporter from quick and unforeseen cost rises.

7. Future outlook of the Finno-Soviet trade

As the bulk of Finnish imports from the Soviet Union consists of crude oil and petroleum products, the prices of which fell sharply in 1986, there was a surplus of some 5 bn Finnmarks ($ 1.1 bn) in that year. This caused a reduction of some 10 per cent in Finnish exports to the Soviet Union, and a reduction of the same order in 1987. Further reductions of 15 per cent each are expected in 1988 and 1989.

On the basis of known oil price predictions we have projected three alternative paths for Finnish imports from the Soviet Union. On these we have then built our estimates of Finnish exports to the Soviet Union. Figure 8 suggests that Finnish exports, irrespective of the growth of the volume of corresponding Finnish imports, have to be reduced in the coming years in order to stabilize the clearing account.

Figure 8. Oil prices and Finnish exports to the Soviet Union: three projections



Negotiations have been conducted and efforts made to diversify Finnish imports from the Soviet Union and increase their volume. From time to time it has also been discussed if new elements should be introduced into the bilateral payments system to increase its flexibility. Antoher slice of the deficit may be converted to interest-bearing longer-term debt. (Soviet negotiations with GATT may also bring about revisions of a fundamental nature.) Oil trading has been used and will also be used in 1988 to reduce the imbalance. This is, in fact, almost equivalent to payments in convertible currencies. Moreover, Soviet efforts to balance and develop its total trade with the West are likely to have an effect on Finno-Soviet trade.

More recently, another type of risk has been considered by the Finnish side: depreciation of the Russian currency in an attempt to rectify purchasing power disparity and pave way for an eventual transferability appropriate index clause against depreciation, as a change in the accounting currency, is clearly called for.

Conclusions

Since World War II, Finland and the Soviet Union have engaged in trade under a bilateral payments agreement. This trade has been mutually beneficial. On the Finnish side, it has served to even out cyclical fluctuations: slack Western markets have coincided with buoyant Soviet market and vice versa. It has served as a kind of partial insurance and made adjustment easier in times of rising oil prices. The other side of the coin is that falling oil prices - normally good tidings - cause adjustment problems. But as these often are predictable, they can be tackled, in a normal way, with appropriate business and economic policies.

Our analysis suggests, however, that the stabilizing characteristics of trade, mentioned above are not mainly due to the bilateral trading agreement. The pattern and time-path of trade are rather determined by normal economic and other considerations. This means a comparative advantage based on specialization, raw material base, proximity, expertise in climactic conditions etc. On the Soviet side it means trade policies typical to an oil-producing country. On both sides, we can count on long traditions, existence of appropriate institutions, personal contacts and confidence, and good relations between our two countries. Whatever changes will be introduced to the technical framework, we believe these basic prerequisites will remain.

*) Mr. Vartia is the managing director of the Institute and Mr. Vartiainen permanent lecturer at the School, respectively. Authors would like to express gratitude to Mr. Kari Alho for his valuable comments. The paper uses material produced in a recent study by the Research Institute of the Finnish Economy, Alho et al. (1986).

Footnotes

1. Why did Finland gain market shares after the 2nd but not after the 1st oil crisis? One explanation refers to the Soviet import boom in 1973 to 1975, not only generated by oil price rises but leading to higher indebtedness as well. The subsequent price rise in 1979 and 1980 was coupled with more cautious attitudes and repayment of debt; increasing imports from a source not demanding convertible currencies, i.e. Finland, was a favoured alternative.

2. Calculations comprise commodity exports only. There is a great number of turnkey and other construction projects of Finnish origin in progress in the Soviet Union. Materials and intermediate goods of these projects are included in commodity exports. Moreover, there is an annual employment effect (averaging 3200 persons in 1981 to 1985) in situ, and another 1000 persons working in planning, design etc.

3. Let us divide Finland's foreign trade and payments into two parts: the bilateral regime vis-à-vis the Soviet Union and another "bilateral" regime, namely Finland's position vis-à-vis the Rest of the world. Suppose Finland has an export surplus on this latter account: no financial problem arises. Assets of the country increase via Central bank/commercial banks, assets are invested in an optimal way with regard to yield, risk and liquidity. Should the excess of exports persist, macroeconomic adjustment process will gain momentum: inflationary pressures will mount via Money Supply, the value of currency will appreciate, eroding competitiveness of export industries and import substituting industries and thus tending to reduce the surplus. Reverse reasoning would apply to an excess of imports.

These mechanisms are lacking in the Finno-Soviet trade. Interest on assets, as well as ways to restore equilibrium, are to be negotiated separately by the authorities.

4. See e.g. DAHMÉN, Ch. 5.

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