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## **BRAIN DRAIN FROM UNIVERSITIES**

**European Conference**

Budapest, 13 - 15 October 1993

**International brain drain - Mutual obligations arising from the flight of human capital**

Suggestions for the discussion by the Secretariat, based on the working documents for the Conference

Directorate of Education, Culture and Sport (Higher Education Section)

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CC-P

**INTERNATIONAL BRAIN DRAIN:**

**Mutual obligations arising from the flight of human capital**

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## I Some general propositions

- 1 If there is one point of agreement in expert studies on brain drain, it is the impossibility of difficult it is to greliable quantitative estimates of the phenomenon of the migration of highly skilled workers and its consequences. If there is a brain drain, its damage will be done before our inadequate systems for social observation have caught up with reality; like a weather forecast that follows a hurricane. This note therefore tries to analyse some of the moral and political issues using a simplified model of the facts, drawn from the reports by Professors Kallen and Sokolewicz.
- 2 The phenomenon under discussion is taken to be the migration of members of the intelligentsia, highly skilled and lengthily educated brain-workers, from countries in central and eastern Europe. I shall speak below simply of B-migrants, in this sense. Let unskilled migrants be called A-migrants, though in truth there is a continuum of skill levels. This paper deals entirely with external brain drain, as the internal one is a matter for the countries of emigration, and, while difficult, does not raise the moral and political issues discussed here.
- 3 The following are therefore assumed:
  - Postulate #1. B-migration benefits the migrants, in terms of money, personal fulfilment or professional status (else they would not go).
  - Postulate #2. B-migration benefits the country of immigration, again in terms of output or cultural enrichment (else the migrants would not be asked in).
  - Postulate #3. B-migration injures the country of emigration in prevailing circumstances, of one-way flows affecting élites with marketable skills.
- 4 Only postulate 3 - which we may call the "brain drain hypothesis" - is really controversial, and will doubtless be discussed intensively during the conference.
- 5 We shall also posit some other important background propositions:
  - Postulate #4. Labour markets for highly skilled labour in Western countries of immigration are tolerably efficient. There are however many imperfections in the public sector - inflexible differentials, and planning failures in the administered markets for the recruitment of new academics, giving rise to bottlenecks and unstable age pyramids.
  - Postulate #5. The corresponding labour markets in the countries of emigration are highly inefficient, and in public higher education have almost completely broken down. There is a huge disparity between public and private sector pay. In the public sector, uncontrolled moonlighting substitutes for decent pay and normal work. Governments and institutions are unable to increase, and to differentiate, salaries to keep key staff in post.

- Postulate #6. In these countries higher education establishments, and even more research ones, were overstaffed in the past by Western standards, and a substantial staff reduction was necessary.
- Postulate #7. In both sets of countries, investment in human capital is mainly made by taxpayers. Also, B-migrants embody far more of it than others, because of the inherently inegalitarian nature of higher education. Training a surgeon is necessarily many times costlier than training a plumber.
- Postulate #8. For at least the major sub-group of basic researchers, there are considerable externalities involved. These are both uncertain and immeasurable. The benefits, both economic and non-economic, of research accrue in varying proportions partly to the researcher (career, reputation and intellectual property), partly to her institution (status, stimulus to other members, intellectual property), partly to the country (status, intellectual property, stimulus to commercial R & D), and partly to the world as a whole (progress of knowledge, spread of inventions). Similar propositions apply to research training, a major task of the universities.

6 We have then a situation far removed from the textbook case of international trade in goods under competitive conditions. The standard proposition is that trade and exchange increase total welfare. In general we would expect this to hold also for migration. The postulates put forward above suggest that there are serious qualifications to be made in applying this to B-migration:

- Qualification #1. Labour markets, especially in the emigration countries, may be so imperfect that B-migration represents a second-best solution. Pareto improvements (ie efficiency improvements making everybody better off) could well be available without the need for migration.
- Qualification #2. B-migration may be exploitative because of the human capital sunk by the taxpayer in the education of the migrant. The country of net immigration is a "free rider" on the investment of citizens of a poorer country of net emigration. No transfer fees are ever paid, except for professional sports.

Some policy suggestions that flow from these ideas are made below, applying to both emigration and immigration countries.

7 The second qualification does not exhaust the intuitive idea of an exploitative relationship, but it is hard to define other versions with any precision and operational content, as the Marxist theory of exploitation exhibits only too well. Two broad suggestions may be advanced:

- free exchanges under gross disparities of wealth and bargaining power may lead to results which are absurd in terms of total welfare, even if they correspond to Pareto-optimal market equilibria (such as starving peasants selling their seed-corn);

- relationships (between neighbours, states, or trading partners) should be sustainable in order to maximise long-term mutual benefits; this implies a certain level of shared understanding, going beyond the immediate transaction, and inhibits the single-minded maximisation of short-run advantage.

It may not be practicable to apply these rather naïve formulations directly to policy, and it unclear how far they fit the case we are considering. They may serve as a reminder to richer countries that their policy should be informed by neighbourliness as well as by self-interest.

- 8 Not all the qualifications we need to make to the simple international exchange picture are negative ones. It is important to remember that the mobility of teachers, students and researchers has been pursued in Europe since the beginnings of the movement to European integration, for reasons of high policy that do not fit within a calculus of mutual advantage: the growth of personal contacts and the exchange of ideas as an essential guarantee of peace among the nations, and the affective basis of a common European citizenship. Even if for sound practical reasons the emphasis within higher education now lies with organised mobility, free movers have also been encouraged by numerous initiatives of the Council of Europe, not to mention the European Community. The cultural value of mobility to Europe as a whole must not be lost in a too mercantilist account of profits and losses. But the European perspective also requires that academic mobility, long-term as well as short, develop in a way which is seen as equitable by all parties.

*Possible conclusion #1: there is a European interest in developing both short- and long-term mobility in ways that strengthen national higher education systems, their institutions and the science base in all countries.*

## II Emigrants

- 9 The first, and most important, point to note about the rights and duties of the emigrants is that freedom of movement, including the freedom to leave one's own country, is a precious and fundamental right. It is protected by international and European human rights law: The European Convention on Human Rights (ECHR), Fourth Protocol, Article 2.2 lays down that

*"Everyone should be free to leave any country, including his own".*

Similar provisions are included in the Helsinki Final Act. This freedom was one of the central demands of dissidents in the communist years, and it was free movement that led to the collapse of the Berlin and other walls. The Council of Europe would certainly oppose any suggestion that freedom of movement be curtailed because of the brain drain problem. The starting point must then be: the emigrant is free to go.

*Possible conclusion #2: the brain drain issue must not be an excuse for curtailing the human*

*right to freedom of movement, including emigration.*

- 10 The legal obligations of the would-be emigrant under law should then be limited to the discharge either of universal obligations (such as military service), and of freely consented contracts. Could brain drain be controlled then through restrictive employment contracts? Since forced labour is also contrary to human rights (ECHR Article 4; European Social Charter Article 1), it is not considered generally legitimate for contracts of employment to be specifically enforceable in the same way as contracts for goods and services. Within limits, public service obligations in return for training may well be legitimate from a human rights point of view; when such obligations are known in advance to those undergoing training, they may be considered as essentially contractual in nature. However, the Committee of Independent Experts of the European Social Charter found that an obligation on military officers to serve 25 years in return for training did constitute forced labour.

*Possible conclusion #3: the brain drain issue must not be an excuse for curtailing the social rights of highly qualified employees in the countries of emigration.*

- 11 A graduate who has freely contracted a study loan or similar obligation is of course legally obliged to repay it, whether or not he or she emigrates. It is therefore open to emigration countries to introduce measures for deferred repayment of study costs, which would reduce the "free rider" problem. This is discussed further below, see paragraphs 14-15. However, it would obviously be discriminatory to introduce a charge only for emigrants, under the guise of a loan system. Even more objectionable would be a charge introduced retroactively, an abuse imposed by the former Soviet Union on Jewish emigrants. It should also be remembered that education is a duty of the state (cf. ECHR, Protocol 1, article 2); an obligation that was fully accepted - indeed vaunted - by the former communist régimes.
- 12 These points exhaust, it seems, the possible "hard", legal obligations of the migrant. Is there however any "soft", moral obligation to stay? This would presumably be founded on a general patriotism, a sense of duty towards students or an institution, or a *noblesse oblige* arising from the privilege of an expensive education. These factors are of course weighed by those who leave, and by many who stay. They go in the balance not only with entirely legitimate personal interests, but also with moral interests such as family responsibilities and the love of science and scholarship; for in many cases, the choice lies between academic work abroad, and other work at home. The scientist's professional duty does not only lie to his or her country. It must be emphasised that these moral interests are matters for the individuals concerned, whose autonomy in a free society must be respected.

*Possible conclusion #4: It is the job of policymakers to create a framework of law and incentives that reconciles free individual decisions with the interests and values of society.*

### III Countries of emigration

- 13 Under the constraints of human rights and fundamental freedoms on the one hand, and economies that range from very hard-pressed to collapsing, the real scope for action by the governments and higher education institutions of the countries of emigration is very slim. It is not however inexistent, and one can suggest four approaches that deserve to be looked at - though one at least, it will be argued below, is inappropriate in our context.
- 14 One legitimate way to reduce the "free rider" problem would be to introduce a scheme for the recovery of costs from graduates of higher education. Such schemes are under consideration in many new, and some old, member countries. They include student loans instead of scholarships, graduate taxes, and hybrids like the Australian Higher Education Contribution. This policy approach is recommended for example by experts for the World Bank, and discussed with experts sponsored by the Council of Europe and the OECD (see: report of the Council's Sofia workshop on "Financing of Higher Education in Transition", June 1992). Since the repayment obligation would be contractual, it is morally conceivable. But is this a practical solution?
- 15 One clear lesson of the Australian experience is that a successful scheme of cost recovery must be designed in a long-term perspective, and a consensus built up on its necessity. Receipts must be earmarked for the development of higher education, and the burden must be bearable for the graduates. The Australian scheme, in force since 1989, recovers about 5% (1992) of government outlays on higher education. Such a long timescale, and the moderate scale of charges, make cost recovery irrelevant as a "quick fix" to the brain drain, whatever its possible merits as a way of sharing the burden of financing the national higher education system. Two further points should be added. First, cost recovery cannot apply to the education provided as a right (the 11 or 12 years of primary and secondary schooling). Second, it would only make future brain drain somewhat less inequitable, and would do nothing to reduce its scale. Indeed, the debt burden on graduates would give them an additional financial incentive to emigrate, as if any were needed.
- 16 Another approach, within the powers of the governments of countries of emigration, is to tackle the dysfunctioning of the internal labour market. The brain drain is an extremely inefficient way of effecting necessary staff reductions, as it removes the most effective, and not the least, from the university. More flexible pay scales and bonuses could give partial recognition to the differentials applying in the private sector. The conditions of employment of academic staff could bring outside work within a legitimate framework of regulation, and take advantage of its potential benefits to the missions of higher education. (The widespread use of part-time teachers with another professional activity is a common and successful practice in Western non-university institutions.) Above all - and this is the hardest step - pay scales have to be raised to a level competitive to the private sector. This will be seen as very expensive. But it is not possible in a market economy in the long run to secure high-quality teaching and research at below-market wage rates. The market in the end will impose the principle that "there is no such thing as a free lunch".

*Possible conclusion #5: home countries and their institutions can provide better incentives for high-quality staff to stay in higher education and research by making the conditions of*

*employment for academics more competitive, introducing flexible differentials, and creating properly regulated part-time contracts.*

- 17 Similar considerations may well apply to postgraduate students. In certain disciplines, special financial incentives may be necessary.
- 18 Since the brain drain exists - has already happened to a large extent - countries of emigration can try to make the most of the situation. Expatriate academics and researchers are a reservoir of skills, which may be available to the country of origin. Still more, they offer contacts to their new host institutions and academic communities. Networks with expatriates could therefore be beneficial, whether or not they encourage return. Modern electronic means such as bulletin boards allow regular contacts at modest cost, though costlier face-to-face meetings and travel are often irreplaceable. Relations with expatriates, especially ones who left many years ago and have absorbed new values from their new domiciles, may of course raise some cultural and political difficulties, but these surely offer a manageable and stimulating challenge. The Slovene example (see the working document circulated at the Conference) could be studied by others.

*Possible conclusion #6: the expatriate communities of academics and students should be encouraged to network with colleagues in the the country of origin.*

- 19 If the thesis is correct that emigration is often a second-best course of action, countries of emigration should seek ways of allowing the personal and academic advantages of mobility without actual emigration. There are many examples of such alternatives. As they have to be developed in cooperation with immigration countries, and are largely financed by the latter, they are discussed further in the next section.
- 20 The measures discussed above are of course only palliatives. In the long run, there is no substitute for two foundations of a healthy and internationally competitive higher education and research system: sound economic policies delivering steady real growth in incomes and the tax base for public services, and building support for a higher priority for higher education and science. These truisms are easy to state, but in reality describe an immensely difficult task for the new democracies, which will take many years even with outside help on a scale not yet seen.

*Possible conclusion #7: the most important action the countries of emigration can take to stem the brain drain is to pursue sound policies for economic recovery, and build a public consensus for the support of a healthy public higher education system and the science base*

*Possible conclusion #8: there is no fair and practical method available to countries of emigration to stop the brain drain entirely. The challenge to the international community is to contain and offset its effects.*

#### **IV Countries of immigration**

- 21 The countries benefiting from the brain drain should recognise the fact, and not evade the moral challenge by hiding behind simplified economic theory. In particular, they should accept that they are "free riders" on investments in human capital made by the citizens of poorer countries. This is even more true where the benefits are partly externalities, as with pure research. Of course, a scheme of strict financial compensation is unthinkable both practically and politically. The consequences of the recognition of a moral obligation should rather lie in generous and timely assistance to the countries of emigration in their efforts to reform higher education and science. Some methods are discussed below.

*Possible conclusion #9: the countries benefiting from the brain drain should recognise a moral debt, arising from the educational investment made in human capital, a debt to be repaid by helping the countries of emigration to revitalise their science base and higher education.*

- 22 It was postulated above that one cause of the brain drain may lie in failures within the countries of immigration. If their academic labour markets are too rigid, shortages in certain areas - precisely those most critical to the economy, such as electronics, software, finance - may arise, leaving a need to import foreign academics. The recruitment of new academics, for its part, depends on research training systems which are often underfunded. As this represents an administered market, planning failures of the type familiar in socialist economies are likely, leading to general shortages and unstable age pyramids, and suboptimal long-term recruitment cycles. The failure to ensure gender equality in recruitment to the academic profession is in itself strong evidence for great inefficiency in the research training systems. These weaknesses can also lead to demand-driven immigration. The contribution of such causes to the brain drain is not clear (except possibly in the case of the United States). However, action to remove bottlenecks in national academic labour markets would be in the interests of the immigration countries in any case, regardless of its possible impact on the brain drain. Overall welfare is not enhanced if a brilliant young Western scientist quits her career because of uncompetitive pay or inadequate child care, to be replaced by a brilliant Eastern immigrant who would rather be at home with his family.

*Possible conclusion #10: the countries of immigration should seek to remove bottlenecks in national academic labour markets and improve their systems for research training, to ensure that national policy failures do not exacerbate the brain drain.*

- 23 Programmes of academic exchange and cooperation, some in place well before the democratic revolution, have proliferated and expanded greatly in the last few years. Higher education institutions, governments and international bodies have been at one in supporting this remarkable movement. These programmes, of which the TEMPUS programme of the European Community may be seen as exemplar, are the key instrument of Western assistance to the revitalisation of higher education in the new democracies. They include, quite essentially, many actions of staff and student mobility. Is there a risk that they stimulate the brain drain? The Hippocratic principle "Do no harm" applies in full to programmes with an altruistic aim and ethos.

- 24 In general, there is a convincing argument that organised, inter-institutional programmes, in which mobility of individuals is funded for a short period, create a much lower risk of brain drain, and probably reduce it overall by providing an attractive alternative to emigration. But are these general propositions, based on intuitive common sense, quite enough? Universities and laboratories are not unworshipful, and academics are not saints; the possibility of intentional and unintentional abuse is present. It could be useful for the conference to identify and disseminate examples of good practice in academic exchange programmes to combat brain drain: for example, in the monitoring of effects (the destination of participants), and the inclusion of specific incentives to return. Joint PhD programmes are an example of a type of activity where the link to the country of origin is strongly maintained by design.

*Possible conclusion #11: the policy of priority for developing assistance through structured programmes of exchange and cooperation, including funding for short-term rather than long-term mobility, is supported also as an appropriate strategy against brain drain; however, the effects of these programmes should be monitored and good practice encouraged.*

- 25 It was suggested above that the countries of emigration need both a policy of saving or rebuilding the science and teaching base, and the help of richer European countries in doing so. The model of inter-university cooperation has shown itself to be effective, but it may be unrealistic to expect it to bear the whole burden, especially as far as research is concerned. By its bottom-up nature, inter-university cooperation may lack the strategic dimension, and it cannot reach the vast non-university research sector. Additional measures are probably needed, directed specifically at the science base. One interesting idea, advanced by the former Polish Vice-Minister (and CC-PU member) Professor Grzelak, would be for Western countries to grant access by researchers in eastern countries, - on equal terms to their nationals - to a part of their national research funds allocated by open competition. Direct funding of key institutes, as with the Kurchatov Institute in Moscow, is another possibility.

*Possible conclusion #12: measures should be considered to support the science base directly, preferably on an open and competitive basis.*

- 26 The CC-PU is not competent for science policy issues, other than those that are inherent in the research mission of universities and higher education. A possible Council of Europe rôle in this area, as follow-up to previous meetings of Ministers responsible for science is at present being discussed. The brain drain issue could be considered in this framework.

## **V Conclusion**

- 27 It must be reiterated that the possible conclusions put forward above for the consideration of the conference are predicated on a number of clear, but doubtless oversimplified, assumptions made without rigorous justification. The conference should examine these assumptions at least as carefully as the inferences developed here on their foundation.

28 For convenience, the possible conclusions are repeated below.

Possible conclusion #1: there is a European interest in developing both short- and long-term mobility in ways that strengthen national higher education systems, their institutions and the science base in all countries.

Possible conclusion #2: the brain drain issue must not be an excuse for curtailing the human right to freedom of movement, including emigration.

Possible conclusion #3: the brain drain issue must not be an excuse for curtailing the social rights of highly qualified employees in the countries of emigration.

Possible conclusion #4: it is the job of policymakers to create a framework of law and incentives that reconciles free individual decisions with the interests and values of society.

Possible conclusion #5: home countries and their institutions can provide better incentives for high-quality staff to stay in higher education and research by making the conditions of employment for academics more competitive, introducing flexible differentials, and creating properly regulated part-time contracts.

Possible conclusion #6: the expatriate communities of academics and students should be encouraged to network with colleagues in the the country of origin.

Possible conclusion #7: the most important action the countries of emigration can take to stem the brain drain is to pursue sound policies for economic recovery, and build a public consensus for the support of a healthy public higher education system and the science base.

Possible conclusion #8: there is no fair and practical method available to countries of emigration to stop the brain drain. The challenge to the international community is to contain and offset its effects.

Possible conclusion #9: the countries benefiting from the brain drain should recognise a moral debt, arising from the educational investment made in human capital, a debt to be repaid by helping the countries of emigration to revitalise their science base and higher education.

Possible conclusion #10: the countries of immigration should seek to remove bottlenecks in national academic labour markets and improve their systems for research training, to ensure that national policy failures do not exacerbate the brain drain.

Possible conclusion #11: the policy of priority for developing assistance through structured programmes of exchange and cooperatiom, including funding for short-term rather than long-term mobility, is supported also as an appropriate strategy against brain drain; however, the effects of these programmes should be monitored and good practice encouraged.

Possible conclusion #12: measures should be considered to support the science base directly, preferably on an open and competitive basis.