ineffectually. Yet simply by being in existence, the academy has drained people and support from the universities, leaving it to republic academies to redress the balance in respect of universities in their own territory. (Moscow University is the exception.) But that has always been an awkward solution, depending on the ability and willingness of academy institutes to provide bright young people with a training in research. If the Soviet academy is to be independent, and also under serious budget pressure, there will have to be a complementary policy on universities as part of the union treaty. Let us hope that, in the scramble to recreate the Soviet Union, that is not forgotten. □

Counting candle-ends

The British Treasury, habitually parsimonious, sacrifices sovereignty in getting its pound of flesh from Brussels.

THE British Treasury has a well deserved reputation for being mean dating at least from its practice, in Gladstone's time, of regarding as a national asset the Civil Service's stock of unspent candle-ends. The tradition is splendidly enshrined in the Treasury's attitude towards research grants offered by the European Commission under the collaborative research programmes of the European Community (EC). The tortured logic, linked with the Eurospeak concepts of "additionality", "attribution" and "substitutability", is laid out admirably in this summer's report on EC research from the House of Lords Select Committee on the European Communities (see *Nature* **346**, 305; 1990). Attribution turns out to be the Treasury's way of subverting additionality.

This is how the argument goes. Suppose some British organization applies for and is awarded a grant from the EC. The grant will be made from funds provided by member states, of whom Britain is one. The EC makes grants on the understanding that they will have a "genuine additional economic impact". Although devised to regulate spending from the EC social fund, this principle of "additionality" is supposed to apply to all community grants. So what happens when British applicants win EC grants? Somebody at the Treasury "attributes" the funds received from Brussels to whichever government departments might have incurred that spending. And then, in the following year, depending on an assessment of the "substitutability" of Brussels for British money, the budgets of the government departments concerned will be reduced accordingly.

The principle of additionality is not formally breached. EC grants are indeed spent on the purposes intended by Brussels. All that happens is that government departments' capacity to spend money on similar projects is reduced in later years. Attribution seems not yet to have begun to bite on British spending on research, but the Science and Engineering Research Council, in its evidence to the House of Lords committee, was alarmed that a Brussels grant of more than £1 million to equip its Neutron Spallation Source to generate muons (to be used by groups from elsewhere in Europe) will be offset by a corresponding hole in its budget.

How can this procedure be defended? The Treasury's argument is that it is one thing to have to pay Britain's annual contribution to the EC (which is a money transfer) but quite another, and worse, to see some of that money return to finance unplanned public expenditure, to the control of which it has long been dedicated. The argument that all public spending engenders inflation may not apply to external sources of funds as it does to the domestic variety, but the true folly of attribution is that it is a way of substituting Brussels's priorities for the British government's. When the British fear as they do the sacrifice of sovereignty to Brussels, the continued practice of attribution seems perverse as well as mean. □

Fusion delayed

The joke that budgets for fusion research are inversely correlated with oil prices (see page 114) is not funny.

WILL there ever be a working thermonuclear fusion reactor, and if so, when? The question is more than academic when governments are casting around zealously for alternative sources of energy. The increase of the world price of crude oil following Iraq's annexation of Kuwait does not imply that supplies of oil are coming to an end, but supplies of oil at $30 a barrel have dried up, at least for the time being. It is natural that governments worrying about their support for windmills and uranium-driven nuclear power should now think more fondly of thermonuclear fusion as well.

The plain truth, sadly, is that there is not much to go on. The fuel (deuterium) may be plentiful and reasonably cheap, but the capital costs of building thermonuclear power stations are essentially incalculable. The international project (INTER) to design a large prototype (see page 114) should provide some kind of yardstick, but even that will not accurately foretell what maintenance costs will arise from the need to replace parts regularly exposed to intense radiation or blobs of hot plasma (as in magnetic-confinement machines). Only operating experience will do that. And then there are the imponderables arising from the need somehow to absorb neutrons produced in fusion, and the public anxiety that will attend the disposal of radioactive waste.

That is why there is the strongest possible case for pushing ahead with the design study, and the construction that should follow. The objective, at this stage, should not be to generate huge amounts of power, but simply to estimate the economic parameters of these machines. But this time governments should not relax when the price of oil falls back below $20 a barrel. Whatever the outcome of the present troubles in the Middle East, fluctuating prices have come to stay. □