

From science policy to research portfolio

How variation in resource dependency of faculties shapes science policy effects

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Abstract

The Dutch government has been implementing policies to prioritize Dutch research for almost a century. The effects are seen as disappointing by policy makers, but new policies worry researchers and the Royal Academy of Sciences. This raises the question how (these) science policies affect research portfolio's. Much research has been done into the effects of policies on individual researchers, but the role of policy decisions within universities received less attention. We show that at Dutch universities the effect of science policies is for an important part determined at the faculty level. Faculty deans weigh opportunities and threats against each other and adjust the faculty research portfolio accordingly. Since faculties differ substantially in their financial dependencies even in the same domain, the effects of policies show a large variation.

1. The university research portfolio: Who pulls the strings?

- ✓ Deans decide on the job description of new positions and advise on the appointment of full professors.
- ✓ Deans decide on the submission of large grant proposals.
- ✓ Deans decide on start and closure of departments.
- ✓ Deans are responsible for budget considerations.
- ✓ Deans are relatively autonomous in their allocation of basic funding to research groups and institutes and change their allocation model on average at least every six years.
- ✓ Deans are responsible for the fulfilment of all university tasks (education, research, knowledge dissemination).
- ✓ The faculty level is the only level in the university at which external and internal funding come together.

2. Variation in funding dependencies

- ✓ There is a large variation in the dependency on types of funding between faculties, even between faculties in the same domain (see **Figure 2**).
- ✓ Basic funding is allocated differently at all Dutch universities, but the number of students and PhDs is an important factor for all allocation models.
- ✓ Faculties differ with respect to their internal allocation models, both within the same university and within the same domain across universities.
- ✓ Due to matching requirements (almost 2/3rds of the externally acquired funding) policies on external funding have effects on the use of basic funding.

3. The effects of changes in funding sources of faculties

- ✓ Deans expect to be able to adjust to changes in their funding sources in such a way that the negative effects of some policy measures will be compensated by success in other funding sources.
- ✓ The recently instituted national policies (i.e. changes in the national research council and agreements with the ministry on university priorities) influence deans' decisions, but to a large majority of deans they are less important than Horizon2020 and internal considerations like new research topics and rewarding excellence.
- ✓ The negative consequences of some new policies result in more influence for other funding sources because deans expect adaptation to other funding sources to be more fruitful than adaptation to the new policies.

4. Conclusions: Why policy goals and policy effects do not match

- ✓ Implicitly many policy documents assume that policies translate directly into effects on researchers (for an illustration compare **Figure 3** and **Figure 4**).
- ✓ However, the faculty, university and – in the end – national research portfolio is only partially determined by choices of individual researchers. University internal policies determine which departments continue and which researchers are appointed.
- ✓ The dependency on funding sources varies between faculties, even within the same domain. This implies that the response to policy incentives varies as well.
- ✓ In order to keep a faculty in the black various external influences need to be aligned (student choices, research capacity, teaching capacity, external funding and matching). This makes a dean's options to change the faculty's research profile limited.

Sources

- ✓ Surveys in person of all deans in NL (Response: 74%)
- ✓ Document analyses of formal documents like annual statements, laws, policy documents
- ✓ Direct questions to the ministry of education
- ✓ Results of a survey of all Dutch universities held by the ministry of Finance
- ✓ A report by EY on matching in Dutch universities

Figure 1: Financial flows to and in Dutch universities

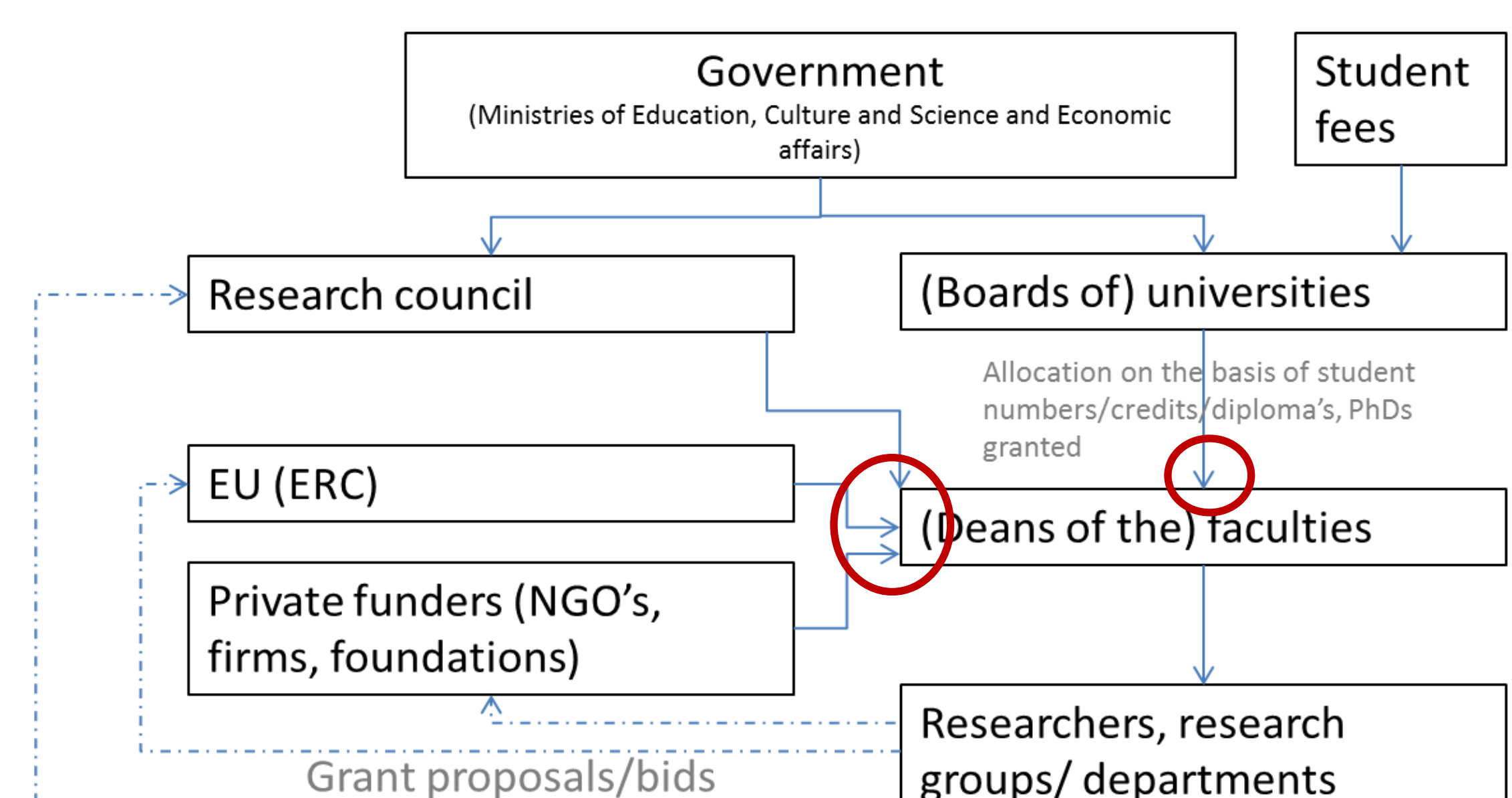


Figure 2: Sources of revenue of university faculties in the Netherlands by domain according to their deans. The percentages within are the ranges of basic funding dependency within a domain.

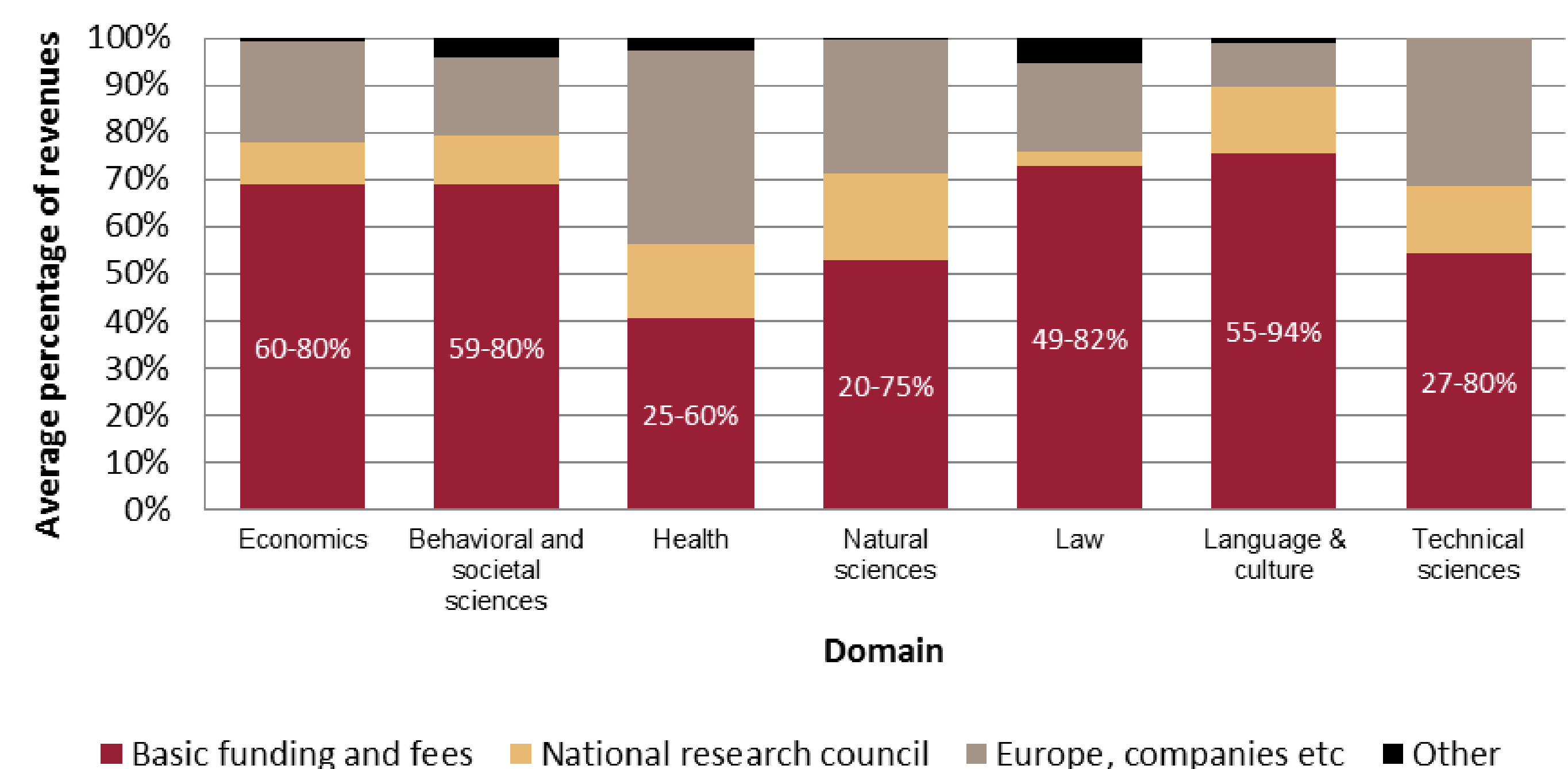


Figure 3: Implicit assumption of policy makers

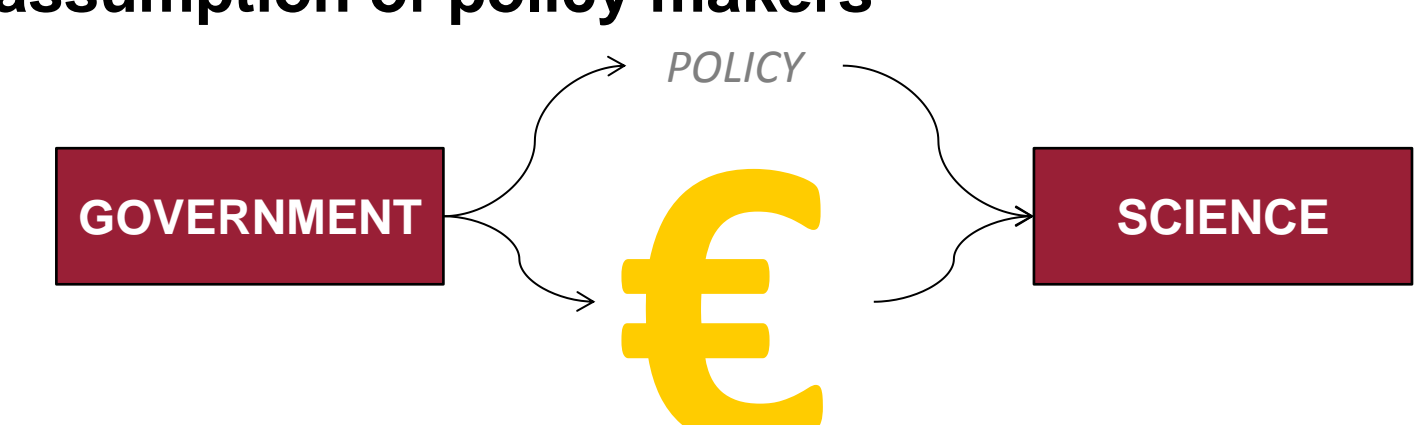


Figure 4: A hint of the complexity of the dependencies on the faculty level

