7.3 Valorization of the research findings

The findings of this dissertation provide some policy implications. Some of the conclusions can be translated into policy advice for national governments, while others are relevant for the higher education institutions.

In Italy, need-based grants appear to be an effective instrument to: (1) stimulate access in higher education; and (2) achieve the Europe 2020 goal of tertiary education for 40% of the relevant age group. Our results have shown that need-based grants increase enrollment

\[ \text{The calculations of the costs and benefits can be found in the corresponding chapters.} \]
for students from low socio-economic backgrounds. This will result in a more equal enrollment in higher education and a more diverse student population. We also found that student retention and graduation are increased by need-based grants. This, in turn, will lead to increased attainment levels. It can, therefore, be suggested to implement need-based grants on a larger scale. While this is costly to implement, it can be expected that the cost-benefit analysis is favorable due to the pay-off in the long run.\footnote{53 This cost-benefit analysis assumes that more students access higher education, and that more students graduate.}

Italian policymakers need to keep in mind that there is a heterogeneous impact of need-based grants. While the grants are beneficial for a group of students in one Italian university, they may not have benefits for the same group of students in another Italian university. Italian policymakers could opt for a combination of two grant allocation mechanisms: (1) they could implement a general need-based policy that is open for all students who meet certain criteria (for example, family income); and (2) they could target specific subpopulations of students for extra financial aid. These subpopulations can differ per university depending on the group of students most in need of financial support (for example, immigrant students).

In the Netherlands the use of need-based grants has been insufficiently investigated. A study concerning the effects of need-based grants seems necessary because of the new student loan system in the Netherlands. Under the old system, students were entitled to a grant that became a gift if they graduated within 10 years. If a student does not graduate, the grant became a loan. The new system no longer grants money in the form of a gift. Students need to borrow all the necessary money. Since the national policymakers still offer grants to the students with the lowest incomes (i.e. an annual family income below €46 000), one could opt to study the effectiveness of this grant. A pilot study could also be necessary to investigate whether need-based grants for students with an annual family
income which is only just above the threshold is effective. Indeed, there are some concerns with regard to access to higher education for this latter group of students.

In the past, governments have stimulated mergers between different higher education institutions to cope with social challenges. In particular, governments want to increase efficiency in higher education and deal with institutional fragmentation (i.e. the presence of many small specialized institutions). Specialized institutions, in particular, are in search of differentiation in order to extend their fields of study. From our results we can conclude that dealing with institutional fragmentation is neither necessary nor efficient.

For EU national governments, it is helpful to know that student mentoring and academic probation are also effective tools to improve student success.

From this dissertation it has become apparent that, independent of the dropout level, higher levels of graduation can be achieved. Given the dropout level, not all institutions in the Netherlands are performing as efficiently as possible. Some institutions could obtain a higher quality-adjusted graduation rate, if they were able to work like the best performing institutions in the Netherlands. As some student characteristics (i.e. being male, a minority student, and satisfied) are related to an inefficient interaction between student dropout and quality-adjusted graduation rates, policymakers could develop interventions to help these subpopulations of students. We recommend a more local policy, whereby every institution or even each department can decide: (I) whether it is necessary to support these groups of students; and (II) how they want to support them. Male and ethnic minority students could, for example, be monitored more closely, and, if necessary, be given the opportunity to participate in special mentoring programs. New didactical techniques, such as flipping the classroom, could positively affect satisfaction. One could also increase the quality of the buildings and the quality of the lecture halls.
In order to increase the quality adjusted graduation rate, institutions could also opt to implement an academic dismissal mechanism. However, this intervention has to go hand in hand with another intervention to increase the satisfaction of the students. As previously shown, academic dismissal has a negative influence on the satisfaction level, which, in turn, has a unfavorable influence on the quality-adjusted graduation rates.

AD policies in the Netherlands lead to more graduates in the institutions that implement them. It can therefore be recommended that AD policies should be implemented on a larger scale and in institutions that suffer from low student success rates. Nevertheless, we showed that this measure comes at the cost of decreased student satisfaction. A second issue with the implementation of AD policy results from the increased student dropout in the first year. Students who do not have a good match with the study program (e.g. due to low engagement) and make unsatisfactory progress need to leave the program and even the institution. The fact that an AD policy leads to more dropouts shows that the matching procedure before students enter higher education is not flawless.

We have observed that mergers do not result in lower student outcomes in the long run is relevant. When a merger is in order, institutions should be aware that the type of merging partner is of importance. A merger partner which is located close by may lead to cost savings by eliminating duplicate resources. A horizontal merger (i.e. a merger with a comparable partner) may also provide the opportunity to eliminate duplicate resources, while a vertical merger (i.e. a merger with diversified partners) may optimize the scale of operations by extending the area of expertise.