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THE HUNGARIAN ACADEMY OF SCIENCES: AN OVERVIEW¹

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The Hungarian Academy of Sciences (HAS) was founded in 1825 and has since become an extremely complex organization that unites various functions from representing the Hungarian academic community and awarding the title of 'Doctor of the Hungarian Academy of Sciences' to functioning as a learned society with elected academicians and maintaining a network of research centres and institutes with employed researchers. Considering its central role in the domestic academic arena, the choices the Academy makes can have a decisive impact on how competitive Hungary becomes internationally.

This chapter provides an introduction into the history, the current structure, and the finances of the Academy and concludes by highlighting some of the challenges that the Academy, given its domestic and regional context, faces today. It should be noted that, given the complex structure of the Hungarian Academy, this brief overview will necessarily be illustrative and cannot aim at being exhaustive.

1. HISTORY

Appealing to the conscience of the wealthy nobility, a representative in the opposition criticized, in an 1825 session of the national assembly, the neglect of the cause of the Hungarian language and culture. Following this,

 $^{^{\}scriptscriptstyle 1}$ I am grateful for the comments of András Jakab and Ilona Pálné Kovács. All errors remain my own.

Count Széchenyi offered one year's proceeds from his estates to this cause. Other nobilities followed suit, and the Learned Society or Hungarian Academy was established in the same year (1825), bearing the official name of the Hungarian Academy of Sciences from 1845.2 The assembly adopted the relevant law in 1827, with the private-public hybrid nature that defines its special status: from private donations, but under the protection of the Habsburg emperor. (Act No. XI of 1827) The notion of 'établissement public' (public body) defines the legal status of the Academy to this day, with a varying degree of internal autonomy, serving a constant public goal that otherwise would have to be directly dispatched by the state. (For more on the question of legal status, see Koi in this volume.) The direct goal was the advancement of the Hungarian language in scientific and artistic use, to make the language apt for academic discussions. A similar act of private donation and campaign led to the construction of the academy's representative building that ended in 1865.3

Seen as an institution born from and supporting the liberal-nationalist cause, its independence was severely reduced after the defeat of the revolution and war of independence of 1848-49. It received state subsidies first after the compromise of 1867, and became a founder of the International Association of Academies by the turn of the century. The image of the institution was partly shaped by the fact that many of its presidents were often also ministers of Hungarian governments. Throughout its history, up to the Second World War, the Academy was seen as a prominent institution, but was also criticized for its conservativism.4 The end of the war in 1945 led to heightened discussion on the need to reform the Academy. This period also brought about the reinforcement of the role of natural sciences in its structure (with two departments out of a total of four).

The communist takeover brought the abolition of internal democracy and an ideological purge. A 1949 law transformed the institution into a Soviet-type academy. (Act XXVII of 1949)5 The ratio of the representation of natural sciences was further increased. An important change was the creation of the Academy's network of research institutes in the 1950s and '60s.6

² János Pótó and Zoltán Fónagy: A Magyar Tudományos Akadémia Története [History of the Hungarian Academy of Sciences], Hungarian Academy of Sciences. 2016. http://mta.hu/ data/dokumentumok/egyeb_dokumentumok/MTA_Tortenete_net.pdf. 2-3; MTA: A Magyar Tudományos Akadémia, Magyar Tudományos Akadémia Kommunikációs Főosztálya. http:// mta.hu/data/dokumentumok/egyeb_dokumentumok/MTA_Bemutas.pdf. 2.

³ Pótó-Fónagy (n 2) 2-3.

⁴ Pótó-Fónagy (n 2) 3.

⁵ For a detailed overview of the regulations concerning the Academy, see Koi in this vo-

⁶ Pótó-Fónagy (n 2) 4.

After, and parallel to, the original idea of creating a centralized communist research institution that took part in the five-year plan, during the decades of socialism, the Academy also became a refuge for researchers critical of the regime who could work without having direct influence on university students through teaching.

The changes of 1989/90 reinvigorated the debates around the roles and functions of the Academy as well as its optimal structure, and everything, down to the foundations, seemed to be in flux – which apparently was a regional phenomenon. (See the other country studies in the preceding and consecutive chapters.) The present structure and functioning of the Academy is defined by the 1994 law that guarantees the independence of the institution as a self-governing public body and maintains its hybrid nature, combining various functions. (Act No. XL of 1994) The adoption of the Fundamental Law of Hungary in 2011 presented what is seen as the most recent challenge to the status of the Academy, with the creation of a competing academy of arts with constitutional status, despite the existence of a similar body within the Academy.⁷

2. INSTITUTIONAL STRUCTURE

The present structure of the Academy combines a series of functions related to the academic field in Hungary.⁸ First, it functions as a learned society, as a club of selected prominent researchers, with the twist that the academicians (or, 'academician members of the Academy') draw a monthly salary-like allowance if they live in Hungary; they also participate, by right of their status, in academic decision-making that reaches beyond the internal affairs of the (academician⁹) members of the Academy. The current number of members is 759, with 294 ordinary (full) members, 56 corresponding, 196 external and 213 honorary members.¹⁰ The law limits the number of full and corresponding members under the age of seventy to 200 and the total number of members to 365. (Art. 6–3 of Act No. XL of 1994)

Second, the Academy has employed researchers in the various research institutes. Academy researchers produce around 30% of the national aca-

⁷ For more on this controversy, see JAKAB in this volume.

⁸ For an overview of the various functions, see JAKAB in this volume.

⁹ There are also 'non-academician' members of the public body, researchers with academic degrees can apply for membership – in practice this means that one can become a non-academician member with a PhD degree. People with non-Hungarian degrees who live abroad can also become non-academician members. See Art. 7 Act No. XL of 1994 on the Hungarian Academy of Sciences.

¹⁰Based on the Academy's register at http://mta.hu/mta_tagjai as of 9 June 2017.

demic publication output.¹¹ The Academy currently employs around 2,500 researchers and 1,500 supporting staff, in 10 research centres (comprising of 39 research institutes) and 5 non-affiliated institutes, with five 'regional commissions' and 89 research teams at universities. 12 Only 35.3% of researchers employed by the Academy are women. Following internal discussions about the role of gender in academic careers, a committee was tasked to investigate the ways in which this imbalance could be remedied.¹³ The Academy has been investing in attracting junior researchers and the number of young researchers has been growing.

Third, the Academy has been playing a role in financing research in Hungary. Although part of this was done through an internally autonomous body, the Hungarian Scientific Research Fund ('OTKA'), which is now under close government control and outside the structure of the Academy, funding possibilities still play an important role in shaping the national academic landscape. 14 E.g., the 'Lendület' ('momentum' or 'impetus') program is an Academy initiative to counter brain drain by offering competitive research facilities in Hungary for internationally renowned researchers. 15 The Academy maintains programs targeting young researchers through a special three-year program that allows PhD students to work at the various institutes of the Academy and post-doctoral researchers through an excellence program. The Bolyai programme provides funding for researchers who are not (yet) Doctors of the Hungarian Academy of Sciences.

Fourth, the Academy grants, through its various bodies, a special doctorate, the title 'Doctor of the Hungarian Academy of Sciences', which is also seen as the highest academic degree in the country. This serves as the antecedent to Academy membership and in itself entitles the titleholder for a monthly allowance that is considerably lower than the membership allowances. Representatives holding this title are, together with all academician members, voting members of the general assembly, the main decisionmaking body of the Academy. Importantly, titleholders play an important role in the accreditation of university programs, raising considerably their 'value' in the local academic market. Jakab identifies a crucial tension in that the decision on granting the title rests on a point-based system, while

¹¹ MTA, A Magyar Tudományos Akadémia kutatóintézet-hálózata, http://mta.hu/hatteranyagok/a-magyar-tudomanyos-akademia-kutatohalozata-105747.

¹² Data from 2015. MTA (n 2) 2-3.

¹³MTA, "Megalakult a Nők a Kutatói Életpályán Elnöki Bizottság" ["Presidential Committee on Academic Career of Women Established"], 26 January 2016, http://mta.hu/mta_hirei/ megalakult-a-nok-a-kutatoi-eletpalyan-elnoki-bizottsag-107348.

¹⁴ See more on this in the chapter on OTKA in this volume.

¹⁵See a recent call at http://mta.hu/data/dokumentumok/english/background/LENDU-LET 2016 felhivas EN.pdf.

there is also a vote that itself does not seem to be subject to these guidelines. ¹⁶ There are currently 1524 researchers holding this doctorate. ¹⁷

Fifth, the Academy has an internal structure that might be likened to the Platonic 'republic of thinkers', with members of the Academy as well as representatives of all other members of the wider academic field participating, currently uniting 17,000 scientists. [See the figure in MTA (n 2) 2.] All PhD-holders can register as non-academician members of the public body and can elect these representatives. This can explain the role of the Academy as not only speaking for academicians and the employed researchers, but also for the interest of the researchers and Hungarian science in general.

As part of this role, the president of the Academy reports to the Parliament not only on the state of the Academy but also of 'Hungarian science' in general. (Art. 3–2 of Act No. XL of 1994) Furthermore, the Parliament and the Government can ask the Academy to give an expert opinion on questions related to its competences. (Art. 3–1-e of Act No. XL of 1994) Some of the recent controversial cases include the opinion on certain historical street names (assessing whether particular persons had links to totalitarian regimes¹⁸) and on the recognition of churches (see Art. 14–4 of the original version of the Act on No. CCVI of 2011; the Academy does not play this role under the current version of the law).

As a more recent case of the Academy stepping up as the representative of the Hungarian academic scene, the president issued a statement concerning Lex CEU – the amendment to the higher education act that seeks to push the university out of Hungary – confirming the importance of its continued presence in Hungary.¹⁹ The Academy hosted an (unsuccessful) attempt to reconcile the differences between the stakeholders, including the minister and a representative of Central European University.²⁰ Other decision-making bodies of the Academy also make their voices heard, as it

¹⁶ See Jakab in this volume. There is one hard link between the point-system and the vote, however: the vote cannot take place if the required minimum threshold is not met by the candidate.

¹⁷Based on the Academy's register at http://mta.hu/koztestuleti_tagok as of 9 June 2017.

¹⁸MTA, "Összefoglaló a XX. századi önkényuralmi rendszerekhez köthető elnevezésekkel összefüggő szakmai vizsgálatról" ["Summary of the expert analysis on names with links to twentieth century totalitarian regimes"], http://mta.hu/data/dokumentumok/hatteranyagok/akademiai_szabalyozasok/osszefoglalalo__XX._szazadi_onkenyuralmi_rendszerek_b.pdf.

¹⁹ Az MTA elnöke a CEU-ról – frissítve [The President of the Hungarian Academy of Sciences on CEU – updated], 5 April 2017, http://mta.hu/mta_hirei/az-mta-elnoke-a-ceu-rol-107536. See also there the list of statements by various bodies of the Academy supporting CEU.

²⁰ Az MTA Székházában próbálták közelíteni egymáshoz a CEU-ügy szereplőit [Attempt at Rapprochement with the Actors of the CEU Affair in the Hall of the Hungarian Academy of Sciences], 12 May 2017, http://mta.hu/mta_hirei/az-mta-szekhazaban-probaltak-kozeliteni-egymashoz-a-ceu-ugy-szereploit-107701.

happened concerning controversial amendments to the law on higher education.21

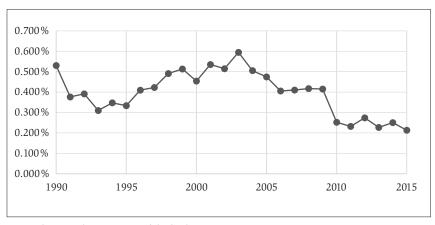
Probably the most telling insight into an institution's priorities can be provided by a look at its budget. The next section will provide an overview of where academic funds go.

3. BUDGETARY SPENDING

The GDP ratio of support for the Academy in the national annual budget has been moving between 0.2% and 0.6%. There has been a clear downward trend from 2003, with stagnation and small occasional increases between 2006 and 2009 and after 2010. The latter means that state support has been remaining in the lowest region since 1990. (Figure 1; All budgetary data in this section is based on the budgetary follow-up laws adopted by the Parliament of Hungary after the execution of the budget of the preceding year, and the numbers include state support for investment.²² The

²¹ See the statement of the Department of Economic and Legal Studies of HAS, 17 June 2015, available at http://mta.hu/data/cikk/13/65/20/cikk_136520/9_osztaly_allasfoglalas_20150617.pdf.

²² 2016. évi CXXII. tv. a Magyarország 2015. évi központi költségvetéséről szóló 2014. évi C. törvény végrehajtásáról; 2015. évi CLXXII. tv. a Magyarország 2014. évi központi költségvetéséről szóló 2013. évi CCXXX. törvény végrehajtásáról; 2014. évi LXII. tv. a Magyarország 2013. évi központi költségvetéséről szóló 2012. évi CCIV. törvény végrehajtásáról; 2013. évi CXCIII. tv. a Magyarország 2012. évi központi költségvetéséről szóló 2011. évi CLXXXVIII. törvény végrehajtásáról; 2012. évi CLV. tv. a Magyar Köztársaság 2011. évi költségvetéséről szóló 2010. évi CLXIX. törvény végrehajtásáról; 2011. évi CXXXIII. tv. a Magyar Köztársaság 2010. évi költségvetésének végrehajtásáról; 2010. évi XCVIII. tv. a Magyar Köztársaság 2009. évi költségvetésének végrehajtásáról; 2009. évi CXXIX. tv. a Magyar Köztársaság 2008. évi költségvetésének végrehajtásáról; 2008. évi LXXVIII. tv. A Magyar Köztársaság 2007. évi költségvetésének végrehajtásáról; 2007. évi CXXVIII. tv. A Magyar Köztársaság 2006. évi költségvetésének végrehajtásáról; 2006. évi XCIX. tv. A Magyar Köztársaság 2005. évi állami költségvetésének végrehajtásáról; 2005. évi CXVIII. tv. Magyar Köztársaság 2004. évi költségvetéséről és az államháztartás hároméves kereteiről szóló törvény végrehajtásáról; 2004. évi C. tv. A Magyar Köztársaság 2003. évi költségvetésének végrehajtásáról; 2003. évi XCV. tv. A Magyar Köztársaság 2001-2002 évi költségvetésének 2002. évi végrehajtásáról; 2002. évi XL. tv. A Magyar Köztársaság 2001. és 2002. évi költségvetésének 2001. évi végrehajtásáról; 2001. évi LXXV. tv. A Magyar Köztársaság 2000. évi költségvetésének végrehajtásáról; 2000. évi CXVIII. tv. A Magyar Köztársaság 1999. évi költségvetésének végrehajtásáról; 1999. évi CV. tv. A Magyar Köztársaság 1998. évi költségvetésének végrehajtásáról; 1998. évi. XLVIII. tv. A Magyar Köztársaság 1997. évi költségvetésének végrehajtásáról; 1997. évi CXI. tv. A Magyar Köztársaság 1996. évi költségvetésének végrehajtásáról; 1996. évi CIX. tv. A Magyar Köztársaság 1995. évi költségvetésének végrehajtásáról; 1995. évi CIV. tv. A Magyar Köztársaság 1994. évi költségvetésének végrehajtásáról; 1994. évi XCVI. tv. A Magyar Köztársaság 1993. évi költségvetésének végrehajtásáról; 1993. évi. XCVIII. tv. A Magyar Köztársaság 1992. évi költségvetésének végrehajtásáról; 1992. évi LXII. tv. A Magyar Köztársaság 1991. évi állami költségvetésének



Source: laws on the execution of the budget

FIGURE 1. • State support for the Academy, per year, in percentage of the annual national budget.

decrease in 2015 is due to the transfer of the scientific support funding to a body outside the sphere of the Academy.²³)

The overall internal breakdown of the budget shows that 5–6% of the Academy's budget is used to pay the allowance of academicians and an additional 10–13% covers the allowances of those holding the title 'Doctor of the Hungarian Academy of Sciences' as well as the Bolyai postdoctoral grant. Considering that many other programs target individual researchers linked to actual research, the Bolyai grant could be considered as a separate category, and this leaves around 15% of the Academy budget devoted to the allowances of members and 'would-be members'.²⁴

Looking at the ratio of spending on research centres and institutions by disciplinary areas, we find a relatively constant ratio of 48-28-24 for natural, life and social sciences.²⁵

végrehajtásáról; 1991. évi XLII. tv. A Magyar Köztársaság 1990. évi állami költségvetésének végrehajtásáról.

²³ See more on the changes in the chapter on 'OTKA' in this volume.

²⁴ Data in this paragraph taken from the report on the 2015 budget of the Academy ["Beszámoló a Magyar Tudományos Akadémia 2015. évi költségvetéséről és vagyoni helyzetéről"], April 2016, http://mta.hu/data/dokumentumok/kozgyules/2016/2napirend_kgy_ktgvetes_vagyoni_helyzet.pdf.

²⁵ Data from laws on the execution of the central budget (1999–2011).

4. CURRENT CHALLENGES

Concluding the concise overview of the Hungarian Academy of Sciences, I will highlight some of hurdles the Academy currently faces. One challenge for the Academy is not specific to Hungary, namely the struggle to attract and keep researchers who can easily find more competitive positions at institutions in Western Europe and North America. The 'Lendület' ('momentum' or 'impetus') program targets these scientists, currently sponsoring research teams at Academy institutes as well as at universities.²⁶ The program started in 2009 and there have been over 100 grants awarded since,²⁷ providing funding that would otherwise not be available in the Hungarian academic scene. This programme is aimed at countering brain drain, and could attract academics who otherwise might not have come back to Hungary to conduct research. Of course, the success of these efforts depends on many factors, including the wider domestic context that got an important blow with the government's apparent determination to force a high achieving university in the country (that has active work relations with the Academy, too), Central European University out of the country.

The Academy cannot reinforce its role as a leading research institution without offering a stable, predictable and appealing career path to current and would-be researchers. The success of the Academy ultimately lies not simply in how, institutionally, the organization manages to get public and government support. It is crucial how individual researchers and the academic community perceives the Academy, its various institutes, as a potential and actual workplace where research can be conducted in a reliable, responsive and supporting environment. This can include taking a bottomup perspective on the institution, assessing how academics and would-be academics perceive the motivational structure provided by the Academy. Current debates include the use of scientometrics in the evaluation of research performance, the parallel employment of researchers, mostly at universities, 28 or the integration of research institutes and the creation of research centres five years ago.

²⁶For the list of Lendület teams, see http://mta.hu/lendulet/az-mta-lendulet-kutatocsoport-halozata-105402.

²⁷ See more on the programme in English at http://mta.hu/english/mta-lendulet-momentum-programme-107185.

²⁸The current presidential programme seems to treat double affiliations more as an asset: "More than half of our members teach at universities, which secures direct links to universities." (Lovász László: "Elnökjelölti koncepció, 2017-2020" [Programme of the presidential candidate, 2017-2020], 15 March 2017, http://mta.hu/data/MTA_elnokjelolti%20koncepcio%20 2017.pdf. 1)

The Academy operates in the wider, regional context that has been marked by great disparities in funding between Western and Eastern Member States (see, e.g. the rate of ERC won). Funding provided by the Commission – the framework programmes and now Horizon 2020 – has been one of the few means to offer competitive salaries to researchers in the region, but recent developments, namely the rule that locks low compensation rates,²⁹ seem to jeopardize this.³⁰

Coming back to domestic challenges, the Academy seems to be walking a thin line, establishing and maintaining its image as an independent, nonpolitical institution that nevertheless has a mandate to deal with controversial and politicized questions including issues like the future of nuclear energy, gender inequality, poverty, or academic freedom. Note also that this happens mostly on public funds that are voted upon every year by the Parliament in its law on the national budget, at a time when critical thinking and autonomous organizations nurturing this are viewed with growing suspicion, from universities to civil society, effectively undermining the sense of institutional stability. Research and the expression of academic opinions easily get labelled as 'political' whenever it touches on areas that happen to be sensitive in the arena of party politics at a given moment. This can translate into self-censorship and, ultimately, a loss of innovation in the research fields that are more directly linked to policy making. This would not only contradict the democratic ideals enshrined in the preamble of the law on the Academy but also hurts its overall mission to serve its home country.

²⁹ Cristian Berce, Ciprian Tomuleasa, and Radu Meza (2017) "Horizon 2020: Funds to Help Eastern Europe Close the Gap" *Nature* 2017/541 (7636) 157.

 $^{^{30}}$ 'Under Horizon 2020, the definition of basic salary and additional remuneration is used for calculating reimbursement of personnel costs.' European Commission, Commission improves funding conditions for EU-funded researchers, Brussels, 27 February 2017, http://ec.europa.eu/research/index.cfm3&na = na-270217&pg = newsalert&year = 2017.