

THE POSSIBILITY OF CROSS-BORDER COOPERATION OF REGIONAL AIRPORTS THROUGH THE EXAMPLE OF OSIJEK AND PÉCS-POGÁNY

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On January 1st 2023, Croatia joined the Schengen area, which means that border controls on persons will no longer be carried out at the common Croatian-Hungarian border. This will facilitate traffic between the counties of Baranya and Osijek-Baranya, which will be further enhanced by the opening of the 20 km final section of the M6 motorway, scheduled for the first quarter of 2024. In this situation, new opportunities will open up for exploiting the mutual benefits of cooperation between these counties, such as the cross-border cooperation between the regional airports near Pécs and Osijek. The study will explore the specificity of both facilities and important conclusions could provide useful lessons to other regional airports facing similar issues.

Keywords: transport, regional airport, Baranya, Osijek, cooperation

Introduction

Following the accession to the EU and the emergence of low-cost airlines, Hungary has several airports with international traffic, either permanently or temporarily opening borders, but the Budapest Liszt Ferenc International Airport stands out by far, both in terms of technical infrastructure and traffic (NTS, 2013). Although absolute passenger numbers are not always an appropriate criterion for categorising an airport and assessing its economic viability, there are around 120 airports in Hungary, some of which have a regional scope.

Two regional airports operate in parallel at a distance of 40–50 km from the Croatian-Hungarian border. Despite this experience, both facilities are seen by local decision-makers as airports with good potential and as an indispensable part of the transport and economic system of the region.

It is worth examining the development of both facilities, their current situation and, in particular, the impact of the last few years on their future. This is particularly relevant considering the introduction of the common currency in Croatia on January 1st 2023 and the country's accession to the Schengen area, which led to the abolition of internal border controls on persons, including those travelling to Hungary.

Materials and methods

The level of development of each transport subsector affects economic growth differently (Dargay and Gately, 1999; Wang, 2002). Although the question is not settled whether the existence of transport infrastructure generates economic growth or vice versa, economic growth requires infrastructure development (Ingram, Liu, 1999; Nagy et al., 2018). The income generation of a region (Lengyel, 2003; Áldorfai et al., 2022) is one of the most important indicators of the development of a region. Air transport is therefore a key issue for the European Union, as it is a highly integrated market with a network structure within the EU and beyond. The internal market in air transport is 'a driving force for social and regional cohesion' (Regulation of the European

Parliament and of the Council, 2021). It is essential for the mobility of European citizens, the development of regions and the economy as a whole, by facilitating the flow of goods, people, and services, by connecting people, boosting tourism, and stimulating business.

The air transport sector has been growing rapidly for decades (until the outbreak of the Covid-19 pandemic) (Regulation of The European Parliament and of The Council, 2019). Major airports, which play a key role in transcontinental transport and handle increasing traffic, are facing challenges from congestion, increased noise, and other problems. In addition to improving connectivity between regions (thus contributing to regional development), small airports can effectively alleviate congestion at key air hubs.

Until 2020, direct passenger traffic in air transport also showed dynamic growth. However, the consequences of the COVID-19 epidemic revealed serious problems in the air transport sector (Siklód, 2023). As a result, air transport, especially passenger air transport (OECD, 2021), experienced a steeper decline than ever before, with a drop of 40–73% in European countries.

The number of flights at European airports fell by 6.1 million (from 11.1 million to 3 million) and passenger traffic by 1.7 billion compared with 2019, resulting in a loss of revenue of €33.6 billion (Eurocontrol, 2021). After the difficulties of previous years, a return to previous levels (2019) was predicted for 2023, but this does not seem to be the case, as the energy crisis caused by Russian aggression against Ukraine has exacerbated the negative economic consequences for the sector from 2022.

There is a very close link between the geographical accessibility and economic performance of individual municipalities and regions, and the accessibility of certain areas (e.g., sparsely populated and/or remote regions, islands) is inherently highly dependent on-air transport. Regional airports play a particularly important role in the recovery of air transport in the post-pandemic period (Airport Council International, 2023).

Pécs is the most populous city of the South Transdanubian region (and Baranya County within it), a full-fledged regional centre (Rácz, Kovács Sándor, Horeczki, 2021; Neszmélyi et al., 2022). The airport is located within

the administrative boundary of the neighbouring village of Pogány, on an area of about 108 hectares. Since 1998, the airport has been operated by the Pécs-Pogány Airport Operating Ltd., which was in majority owned by the Municipality of Pécs (the ownership shares of the Municipality of Pécs and the Municipality of Baranya County was originally 50–50%).

The major development of the facility was launched at an unfortunate time, just before the entry and rapid expansion of the new commercial model of low-cost airlines using smaller (regional) airports. The 1,500 m long runway, built in 2003, does not allow for the safe handling of 130–150 passenger (large) aircraft and would need to be extended. The municipality of Pécs estimated the cost of this investment at HUF 10–11 billion at the end of 2021 (Government of the Legal Town of Pécs County, 2021), for which it was not possible to find an investor in the last two decades.

The facility has played a very limited and short-lived role in increasing tourist traffic, even though the original vision was to reach at least 100,000 passengers by 2011¹ to avoid operating at a loss (compared to the highest number of passengers ever in 2011, which was only around 7,200 in total) (Babos, 2012). In 2004, the airport's lighting and navigation system was completed and in 2006 the new passenger terminal and control tower were inaugurated, but due to the short runway, only charter flights were available between 2007 and 2012, and these only served two destinations (Bulgarian and Greek coasts). Efforts to launch regular flights have not been successful since then, due to the limited number of destinations and the low demand (Huderek-Glowska, 2021). The competitiveness of the regional airport has also been significantly affected by the construction of the M6 motorway, which since 2010 has connected Pécs to the capital via the M60 motorway.

Although the National Transport Authority's Aviation Department classified the facility as a Class II airport at the end of 2011, even in the years before the COVID-19 epidemic, significant support from the majority owner – worth HUF 100–110 million – was needed to finance losses and maintain operational viability. After a long series of negotiations, on 16th December 2021, the Pécs-Pogány Airport Operating Ltd. and

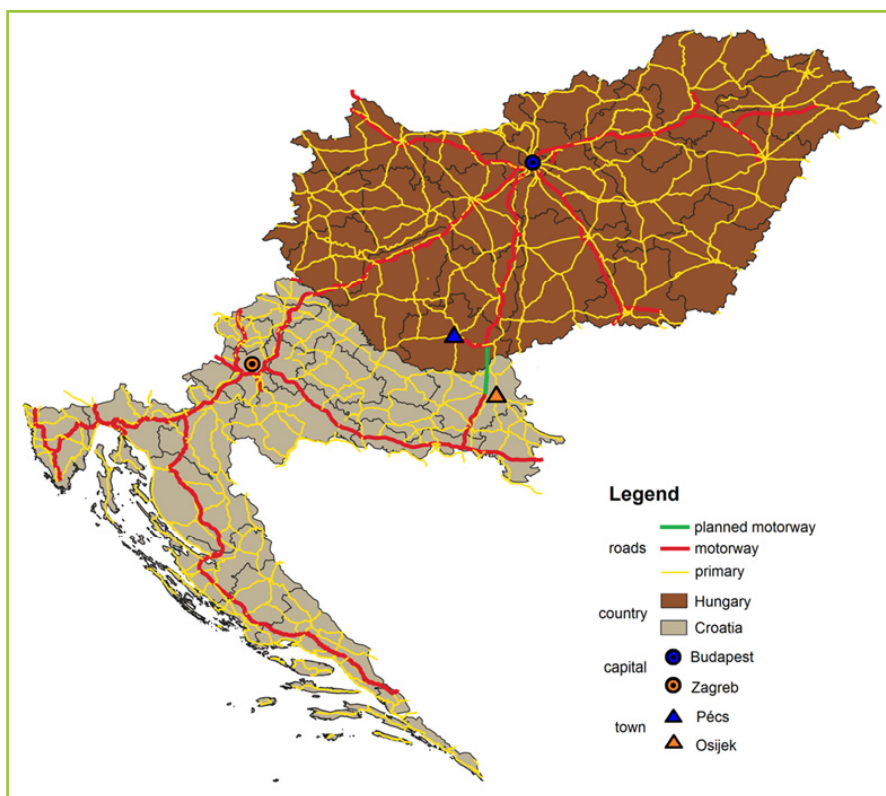


Figure 1 Location of Pécs-Pogány and Osijek Airports

Source: authors' own editing

Air-Horizont Nonprofit Ltd. were also acquired by the majority state², with the Hungarian National Asset Management (HNAM Inc) exercising ownership rights (Municipality of the City of Pécs County 2021). The total consideration for the shares was HUF 977.7 million; following the parliamentary elections held in spring 2022, the Ministry of Foreign Affairs and Trade (MFA) became the owner³.

The international airport of Osijek was opened in 1980, but it ceased operations during the break-up of the former Yugoslavia and was only able to resume operations in 2002 (Budić 2019). The airport is located about 18 km South East of the city centre and about 5 km west of Vukovar, 5 km from the D7 motorway, similar to the airport of Pécs⁴ (Figure 1). The airport in Osijek provides facilities for the reception

and delivery of passengers, goods, mail, and other goods, as well as commercial, catering, health, air taxi, car rental, aircraft fuel, and tourist services. The airport operates as a limited liability company with fully public (domestic) capital. Ownership is 55% by the Republic of Croatia, 25% by the Osijek-Baranja County and 20% by the City of Osijek.

In 2022, the airport will have an annual revenue of €2,450,766, an increase of €593,218 compared to the previous period. These figures also show that the airport has room for growth. It reached its highest passenger numbers in 2018, with 67,235 passengers (Table 1), before experiencing a slight decline the following year (46,383 passengers). The significant increase was due to the new Eurowings/Germanwings destination Osijek-Stuttgart. In addition to Eurowings and Germanwings, a cooperation with Wizzair was established, which started flights on the Osijek-Basel route. Domestic traffic is handled by Trade Air and Croatia Airlines. The spread of the coronavirus and the associated travel restrictions led to a significant drop in traffic. Wizzair also suspended its operations during this period. After the closures were lifted, passenger numbers started to rise again, but did not approach the peak year of 2018. Currently the airport is served by Croatia Airlines, Trade

¹ In 2010, Pécs was awarded the title of European Capital of Culture (ECC), but – mainly due to the financial and economic crisis – it was not able to take advantage of the tourism and other opportunities it offers.

² The Hungarian State became the majority owner (51%) by purchasing a 9.8% stake (HUF 2,601,000 nominal contribution), while the Municipality of Pécs retained a 49% stake (HUF 2,499,000 nominal contribution).

³ Until September 2022, the State Secretariat for the Expansion of the Paks Nuclear Power Plant was responsible for the ownership of the plant within Ministry of Foreign Affairs and Trade (MFA).

⁴ Both airports are close to a medium-sized town and a motorway, which will also connect the two airports in the future.

Table 1 Main data of Pécs and Osijek Airports

	Pécs-Pogány Airport	Osijek Airport
Owner	State of Hungary (51%), City of Pécs (49%)	State of Croatia (55%), County of Osijek-Baranja (25%) and City of Osijek (20%)
Runway length	1.5 km	2.5 km
Largest passenger traffic	7,200 people (2011)	67,235 people (2018)
Airlines operating at the airport	Currently not operating, restart 2024 Universal Air	Croatia Airlines, Trade Air, Ryanair and Sea Air
Destinations	currently not in operation, in 2024 March: Munich, Malta and Corfu	domestic: Zagreb, Rijeka, Split, Dubrovnik foreign: London, Frankfurt and Stuttgart
Pilot training	No training	Wizz Air

Source: the author's own editing

Air, Ryanair and Sea Air. Domestic destinations are Zagreb, Rijeka, Split, and Dubrovnik, while international destinations are London, Frankfurt and Stuttgart. The airport also offers pilot training organised by Wizz Air (Mihić, 2020).

Since its reopening, the airport had its highest passenger traffic in 2019 (Statistical Office of Croatia, 2022). The airport aims to double the traffic of Wizz Air and multiply the international traffic of Croatia Airlines (6,416 passengers) by 2024, while maintaining its domestic traffic (7,695 passengers) with the existing destinations (Osijek-Split and Osijek-Dubrovnik). The airport's revenue is not generated by airlines with outstanding international passenger traffic, but e.g. in 2019 it was generated by the domestic traffic of Trade Air and Croatia Airlines, followed only by the passenger traffic of Eurowing and Wizz Air.

The airport's cargo terminal was built in 1982 to serve freight traffic. The peak year for cargo traffic was 2005, when the volume reached 3,830 tonnes. In recent years, this traffic has been reduced to a very low level, and these shipments have been made only on international routes, with domestic shipments being negligible (Pámer, 2021).

Results and discussion

Baranya is an average-sized county in terms of both area and population, but it is one of the most backward counties in Hungary (Baranja County, 2020). According to the objectives of the Baranya County Spatial Development Concept, the county's vision for 2030 is to become a "metropolitan hub", taking advantage of its favorable geographical location in the center of the Budapest-Zagreb-Belgrade "triangle". On 6 February 2024, it was announced at a press conference that Universal Air will operate scheduled flights between Malta, Pécs, and Munich starting in March, and a charter to Corfu is planned to start in May. The completion of the missing section of the M6 motorway, scheduled for 2024, will further improve road access to the county centers (Pécs and Osijek). In order to strengthen the "multimodal service role" of Baranya County (and Pécs in particular), the coordinated development of road, rail, water, and air transport infrastructure is also needed (Master Plan for the Transport Development of Osijek and Osijek-Baranja County, 2016). The internal coherence analysis of the objectives of the County's Spatial Development Concept for the period up to 2030 also mentions the potential of Pécs-Pogányi Airport (in case of its development as a commercial airport) among the opportunities.

On 1 June 2023, the Government decided to examine further options for the development of five domestic regional (Pécs-Pogány, Győr-Pér, Balaton-Hévíz, Békéscsaba, and Debrecen) airports. In its decision 1211/2023 (VI.1) Government Decision No. 111123/2013 states that the development of airports is a "national strategic objective" and that feasibility studies are required to exploit the potential of their regional and economic development functions,

on the basis of which a separate feasibility study will be carried out for Pécs-Pogányi Airport, with particular regard to regional development aspects (air passenger and cargo transport, small aircraft traffic, maintenance market opportunities) and the needs for the development of airport infrastructure. On the basis of the findings of the feasibility studies, the Minister for Regional Development, in consultation with the Minister for Foreign Affairs and Trade, the Minister for Construction and Transport, and the Minister for Economic Development, will be responsible for presenting within 60 days a proposal on the development concept and the regional and economic development impact of the airports under consideration, presenting the possible investments (including their time requirements and indicative costs) in order of priority. Although not specifically mentioned in the Decision, for all facilities, with the exception of Hévíz-Balaton International Airport, the current situation of similar facilities in neighboring countries (e.g., Croatia) and their development concepts should be taken into account.

There are several areas in the immediate vicinity of Pécs-Pogányi Airport which, due to their location, accessibility and infrastructure (especially utilities), could serve as a location for industrial facilities. If the economic development objectives of the municipalities concerned (Pécs and Pogány) are in line with the government's vision, the operation of the facility could become more economical.

The management of the airport aims to achieve financial stability. Without public support, Osijek Airport would not be able to achieve this on a self-sustaining basis. The accession to the Schengen area, the switching to the euro as a means of payment and the inclusion of four capitals (Zagreb, Budapest, Belgrade and Sarajevo) within a 250 km radius will contribute to increase the airport's traffic. The last factor is influenced by the fact that Pécs and Osijek will be connected by a highway in the near future.

The Baranja district set the development of the Osijek Airport as a medium-term objective, with the aim of increasing passenger traffic on existing domestic routes (Zagreb, Pula, Rijeka, Split, and Dubrovnik) by using larger capacity aircraft. International routes are to be extended to German airports (Munich and Dortmund). In addition to passenger and cargo traffic, it is planned to establish regular routes (even becoming a service hub) with low-cost airlines and to provide refueling facilities for longer flights (from Europe to Asia and Africa) (Development Strategy for the County of Osijek-Baranja, 2018). The airport's 60 hectares of open space could also be used to create a free zone, for which the necessary infrastructure is already in place. The creation of a multimodal connection would facilitate the expansion of passenger and freight transport by linking air, river, rail, and road transport (Development Strategy for the County of Osijek-Baranja, 2018). In addition, the airport could have a significant impact on the development of tourism in the whole of Baranya and Slavonia. Although travelers can reach the airport by car or taxi, the timetable of bus services between the airport and the center of Osijek needs to be improved (Development Plan

for the County of Osijek-Baranja, 2022). It is essential that the airport is linked to other tourist destinations.

Finally, the airport could also be an opportunity for guest workers from the surrounding regions (Slavonia, Northern Bosnia and Herzegovina, and Western Serbia) to use Osijek Airport for their trips to European countries, which could contribute to the development of tourism. If these improvements were implemented, the airport could reach 150,000 passengers per year (Master Plan for Tourism in Osječko-Baranja County, 2017), which would make it self-sustaining.

Conclusions

It is essential that Hungary has a coherent airport development strategy in itself, but this should take into account similar plans in neighboring countries, in particular with regard to cross-border cooperation opportunities between EU Member States. We are convinced that fruitful cross-border cooperation in the field of air transport could be developed in the longer term, in which Osijek Airport should play a decisive role in relation to passenger transport. Given the physical proximity of the two airports, especially since Croatia's accession to the Schengen area, it would be pointless and a guaranteed loss to develop parallel facilities with a similar profile in many respects.

As the devaluation of Osijek and Pécs as regional centers is still observed, it is also urgent to exploit the potential of cross-border cooperation (cross-border nature is inherent to air transport). In order to avoid duplication and harmful competition, cooperation, and division of labour between Pécs and Osijek and between Baranya County and Osijek-Baranya should be developed, based on common challenges and interests, in order to ensure mutual benefits for all stakeholders, thus leading to profitable operations and the further development of infrastructure in line with market needs at both airports. A well-thought-out development, drawing on the experience and lessons learned over the past decades, could be an excellent example of successful division of labour and cross-border cooperation within the European Union in the future.

Reference

- Airport Council International. 2023. European Regional Airports: Sustainably Connecting People, Places and Products. ACI EUROPE, 2023, pp. 4–5. Download date: 30. 1. 2024. Available to: <https://www.aci-europe.org/downloads/resources/EUROPEAN%20REGIONAL%20AIRPORTS%202023.pdf>
- Áldorfai, Gy. – Nagy, H. – Tóth, T. 2022. A területi egységek összetett teljesítményértékelése. In *Területi Statisztika*, vol. 62, 2022, no. 4 pp. 405–434.
- BABOS, A. 2012. Bezárhat a pogányi reptér? BAMA news portal. Download date: 30. 1. 2024. Available to: <https://www.bama.hu/kozelet/2012/02/bezarhat-a-poganyi-repter>
- Baranja County. 2020. Baranya County Regional Development Concept 2030. Pécs : Baranya, 2020.
- Budić, M. 2019. Zračni promet u Republici Hrvatskoj – stanje i perspektive razvoja. Zagreb : University of Zagreb, 2019.
- Dargay, J. – Gately, D. 1999. Income's effect on vehicle ownership, worldwide: 1960–2015. *Transportation and Research Part A*, vol. 33, 1999, no. 2, pp. 101–138. [https://doi.org/10.1016/S0965-8564\(98\)00026-3](https://doi.org/10.1016/S0965-8564(98)00026-3)
- Development Plan for the County of Osijek-Baranja. 2022. Plan razvoja Osječko-baranjske županije za razdoblje do 2027. Download date: 30. 1. 2024. Available to: https://www.zra.hr/images/Plan_razvoja_OBZ_2027_web.pdf
- Development Strategy for the County of Osijek-Baranja. 2018. Plan razvoja Osječko-baranjske županije za razdoblje do 2027. Download date: 30. 1. 2024. Available to: https://obz.hr/images/Plan_razvoja_OBZ_2027_web.pdf
- Eurocontrol. 2021. Aviation Intelligence Unit, Think Paper #8, 1 January 2021. Download date: 30. 1. 2024. Available to: <https://www.eurocontrol.int/publication/what-covid19-did-european-aviation-2020-outlook-2021>
- Government of the Legal Town of Pécs County. 2021. Meeting of 14 December 2021: Taking decisions on the development of Pécs-Pogányi Airport. Index No: 8/375-6/2021. Download date: 30. 1. 2024. Available to: <https://eugyintezes.pecs.hu/static/tempPdf/1251694/8-375-6.pdf>
- Huderek-Glapska, S. 2021. The air transport markets in Central and Eastern Europe. In: A. Graham et al. *Air Transport and Regional Development Case Studies*. Routledge, New York, 2021, pp. 135–136.
- Ingram, K. G. – LIU, Z., 1999. Determinants of motorization and road provision. *The World Bank*, 1999. DOI: 10.1596/1813-9450-2042
- Lengyel, I. 2003. Verseny és területi fejlődés: térségek versenyképessége Magyarországon. Szeged : JATEPress, 2003.
- Master Plan For The Transport Development Of Osijek And Osijek-Baranja County. 2016. Master plan prometnog razvoja Grada Osijeka i Osječko-baranjske županije. Download date: 30. 1. 2024. Available to: https://www.obz.hr/pdf/strategija/2018/02_master_plan_prometnog_razvoja_grada_osijeka_i_osjecko_baranjske_zupanije_konacni_elaborat.pdf
- Master Plan For Tourism In Osječko-Baranja County. 2017. Osijek. (Master plan turizma Osječko-baranjske županije). Download date: 30. 1. 2024. Available to: https://obz.hr/pdf/strategija/2017/master_plan_turizma_obz.pdf
- Mihnić, F. 2020. Školju se kod nas! Wizz Air Pilot Academy u Zračnoj luci Osijek. In *Osijek Express*, 2020. Download date: 30. 1. 2024. Available to: <https://www.osijekexpress.com/2020/02/12/skolju-se-kod-nas-wizz-air-pilot-academy-u-zracnoj-luci-osijek/>
- Municipality Of The City Of Pécs County. 2021. Decision No 565/2021 (XII. 14.). Download date: 30. 1. 2024. Available to: <https://pecs.hu/hirek/rendeletek/>
- Nagy, H. – Káposzta, J. – Varga-Nagy, A. 2018. Is ICT smartness possible development way for hungarian rural areas? In *Engineering for Rural Development*, 2018, pp. 463–468. ISSN 1691-3043 1691-5976
- National Transport Strategy (NTS). 2013. National Transport Concept (Vitaanyag). Transport Development Coordination Centre – Strategy Consortium, 2013, 36 p.
- Neszmélyi, Gy. – Vinogradov, Sz. – Nagy, H. 2022. Regional inequalities within the Visegrad group over the years 2000–2018. In *European Spatial Research And Policy* (1231–1952, 1896-1525), vol. 29, 2022, no. 1, pp. 5–24
- OECD. 2021. State Support to the Air Transport Sector: Monitoring developments related to the Covid-19 crisis, 22 April 2021, 23. p. Download date: 30. 1. 2024. Available to: <https://www.oecd.org/corporate/State-Support-to-the-Air-Transport-Sector-Monitoring-Developments-Related-to-the-COVID-19-Crisis.pdf>
- Pámer, Z. 2021. A területi kormányzás és a területi integráció vizsgálata Baranya megye fejlesztési dokumentumaiban az uniós csatlakozástól napjainkig. In *Tér és Társadalom*, vol. 35, 2021, no. 3, 112 p. <https://doi.org/10.17649/TET.35.3.3337>
- Rácz, Sz. – Kovács Sándor, Zs. – Horeczki, R. 2021. Pécs, In Rechnitzer, J. – Berkes, J. (szerk.). *Nagyvárosok Magyarországon*. Budapest : Ludovika Egyetemi Kiadó, 2021, 207 p.
- Regulation of the European Parliament and of the Council (draft). 2021. Ensuring a level playing field for sustainable air transport. Download date: 30. 1. 2024. Available to: <https://data.consilium.europa.eu/doc/document/ST-10884-2021-INIT/hu/pdf>
- Regulation of the European Parliament and of the Council. 2019. The European environment – state and outlook 2030. Knowledge for transition to a sustainable Europe, 2019, 310 p.
- Siklód, A. 2023. Több mint hatvan légitársaság tűnt el a járvány három éve alatt. Index news portal. Download date: 30. 1. 2024. Available to: <https://index.hu/kulfold/2023/02/19/jarvany-gazdasag-repules-legitarsasag-felszamolasi/>
- Statistical Office of Croatia. 2022. Download date: 30. 1. 2024. Available to: <https://podaci.dzs.hr/2022/hr/29122>
- Wang, E. C. 2002. Public infrastructure and economic growth: a new approach applied to East Asian economies. In *Journal of Policy Modeling*, vol. 24, 2002, no. 5, pp. 411–435. [https://doi.org/10.1016/S0161-8938\(02\)00123-0](https://doi.org/10.1016/S0161-8938(02)00123-0)

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