

INSTITUTIONS OF HIGHER EDUCATION: A CRITICAL ISSUE FOR THE ECONOMIC ENGINE OF QUEBEC

By the Board of Trade of Metropolitan Montreal

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Executive summary

Insofar as the knowledge economy plays a leading role in the development of the metropolis and the university system is central to its success, the Board of Trade is interested in the question of university funding in Quebec. This document outlines the importance of universities to Montreal's development and suggests some approaches to improving the funding of university teaching and research institutions by encouraging contributions from the entire community, students, governments, businesspeople, graduates, and philanthropists.

The knowledge economy and the direct international competition between metropolitan areas compel cities to develop higher education systems offering leading-edge training and research and development activities. In Quebec, the hotbed of high-knowledge economic activity is clearly Greater Montreal. This is largely because of the presence of four universities and four major schools on the Island of Montreal, university campuses throughout the metropolis, more than 170,000 students, and 75% of Quebec's university research.

The Greater Montreal economy, one of the most diversified in Canada,¹ can rely on three particularly well-developed sectors of the knowledge economy. These pillars of Montreal's economic development - information technology (110,000 jobs), aerospace (almost 40,000 jobs), and life sciences (almost 40,000 jobs) - employ almost 200,000 people out of a total of 1.8 million jobs².

As with companies, the new competitive environment faced by Quebec and Montreal universities is certainly not limited to Canada. Competition is now felt across North America and around the world - hence the importance of a highly competitive system. Yet a 2002 study estimates the operating deficit of Quebec universities compared with other Canadian universities in 2002-2003 to be \$375.3 million.³

The Board of Trade believes that the best way to fill this gap is to call on the help of all beneficiaries of the university system. Students, governments, philanthropists, and the business community should all be called upon to create a higher education system meeting the needs and expectations of universities, students, and researchers. Here are some ways this can be done:

- A greater contribution from students corresponding to half of the deficit, with part of the increased tuition fees systematically paid into the government's financial assistance program to ensure the least well-to-do students will have access to a university education;
- A matching contribution from the Quebec government;
- Increased contributions from the beneficiaries of the university system, such as graduates, companies, and business people, particularly through the coordination of financial support by targeted industrial sectors, having employers repay student loans under the 1% law, and having employers contribute to their employees' Registered Education Savings Plans (RESPs), with the contributions considered a salary expense

Faced with this underfunding situation, no one in Quebec can afford to assume the entire cost. That is why the Board of Trade believes the entire community must do its part to ensure the full and healthy development of the metropolis, the economic engine of the province.

¹BECKSTEAD Desmond and Mark BROWN, From Labrador City to Toronto: The industrial diversity of Canadian cities, 1992-2002, Statistics Canada, October 2003, p. 4.

² Greater Montréal 2006 High Technology and Innovation Indicators, Montréal International, and Bulletin métropolitain sur le marché du travail, RMR de Montréal, Bilan annuel 2006, volume 2, numéro 5.

³ CREPUQ-MEQ, *Rapport du Comité conjoint CREPUQ-MEQ sur le niveau des ressources*, November 2002, p. 19. (CREPUQ and the Ministère are currently working to update this data but, given inflation, the figure \$400 million may conservatively be advanced.)

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Introduction

The Board of Trade of Metropolitan Montreal has some 7,000 members. Its mission is to represent the interests of the Greater Montreal business community and to offer an integrated range of specialized services helping individuals, merchants, and businesses of all sizes realize their full potential in terms of innovation, productivity, and competitiveness.

The Board of Trade has long been interested in issues surrounding education, workforce training, and R&D activities carried out in metropolitan Montreal. Indeed, in recent years, the Board of Trade has diligently participated in government consultations on the education system, particularly those pertaining to the system of universities. It produced briefs on education in 1992, 1996, 2001, and more recently, in 2004, for the Parliamentary committee on the quality, accessibility, and funding of universities

The knowledge economy and the direct international competition between metropolitan areas obliges them to have higher education systems capable of offering quality training and leading-edge research and development activities. Given that, in relation to the manufacturing sector, innovative and high-knowledge sectors assumed an increasingly important role in the 20th century, it is clear that neither nations nor cities can develop or prosper without excelling in knowledge areas. In Quebec, the hotbed of high-knowledge economic activity is without a doubt Greater Montreal. This is due to the existence here of a critical mass of education and university research: four universities on the Island of Montreal, teaching activities throughout the metropolitan area, more than 170,000 students, and 75% of Quebec's university research.

In this brief, the Board of Trade will address the following three subjects: the critical importance of the university system to Greater Montreal's economic competitiveness; the underfunding of Quebec universities; and the importance of making a major shift in the funding of higher education.

1. The university system: the driving force behind Greater Montreal's innovation, productivity, and economic competitiveness

A. The 21st century economy: the importance of high knowledge and innovation

In the current global context, the high-knowledge economy has assumed an undeniable importance. Insofar as one of the key components of this new economy is human capital, the quality of education takes on a whole new meaning. Not surprisingly, major urban centres are increasingly and fiercely competing head on to attract and keep qualified labour.

Metropolitan Montreal is no different: its economy, and by extension, that of Quebec and Canada, also needs a strong concentration of qualified workers. And in this respect, there is no question that universities help develop this qualified labour and help create and attract high-knowledge businesses to Montreal. This contribution is essential if Greater Montreal is to take its rightful place in the knowledge economy, a place befitting its many assets and possibilities.

B. Knowledge: one of Montreal's assets

The economy of the Montreal region, one of the most diversified in Canada,⁴ can rely on three particularly well-developed sectors of the knowledge economy: information technology (110,000 jobs), aerospace (40,000 jobs), and life sciences (40,000 jobs). These pillars of Montreal's economic development employ almost 200,000 people out of a total of 1.8 million jobs, or about 10% of all jobs in the Montreal region.⁵ Moreover, these sectors of economic activity have close ties to university activities, because to a large extent, it is Montreal's universities that educate the qualified labour force working in these fields. Indeed, these universities have done much to further the development of Montreal's world-class technological sectors of excellence. As an example of the economic spin-offs they generate, it bears mentioning that for the metropolitan region alone, these sectors were responsible for \$18.9 billion in exports in 2001,⁶ or just over 13% of all Quebec exports.⁷

C. A powerhouse of research and training unique to Quebec

In addition to being home to many companies in the knowledge economy, Montreal is a powerhouse of research and training. As such, in addition to the four universities located on the Island, a university campus in Laval and one on the South Shore, the metropolitan region has four major schools and 201 university research centres. More than 170,000⁸ students pursue their university studies in the Montreal region, representing just over 60% of the 261,000⁹ university students in Quebec. In short, Greater Montreal is the focal point of university activity in Quebec.

⁴BECKSTEAD Desmond and Mark BROWN, *From Labrador City to Toronto: The industrial diversity of Canadian cities, 1992-2002*, Statistics Canada, October 2003, p. 4.

⁵ Greater Montréal 2006 High Technology and Innovation Indicators, Montréal International, and Bulletin métropolitain sur le marché du travail, RMR de Montréal, Bilan annuel 2006, volume 2, numéro 5.

⁶ Fernand MARTIN, *Savoir et croissance, les universités: catalyseurs du Montréal métropolitain – Les retombées économiques*, Université de Montréal, February 2004, p. 6

⁷ Institut de la statistique du Québec, *Tableau statistique du Québec 2004*, vol. 2, no 1, January 2004, pp. 53-54.

⁸ Data from the Ministère de l'Éducation, des Loisirs et des Sport, 2006 (Fall quarter, 2005)

⁹ *ibid*

For example, approximately 75% of all university research and development in Quebec is conducted in the Montreal region¹⁰ and more than half of the province's physicians and pharmacists are educated in its universities.

Not only is the metropolis in a class of its own on the provincial scene, but it also ranks first in terms of university research grants awarded in Canada, with \$1.1 billion received in 2004¹¹. Montreal is also the only Canadian city to boast two medical faculties. Inasmuch as the infrastructures the universities make available to researchers are – and we will discuss this further on – often poorly adapted to today's research needs, the fact that Montreal ranks first among Canadian cities in terms of university research is an amazing feat that is a testament to the determination of Montreal's researchers.

For the Board of Trade, the economic impact of research and development is felt in many ways. For example, in 2001, research and teaching activities at Montreal universities generated some \$2.5 billion¹² in expenses for payroll and goods and services. However, the economic contribution of universities extends beyond the research conducted on their campuses to the commercialization and marketing of their discoveries by private companies. On an annual basis, these activities amount to almost \$1 billion¹³ in the Montreal region, and we may reasonably expect that the construction of the two teaching hospitals – once finished and excluding all economic activity generated by the construction itself – will significantly increase this amount.

Moreover, Montreal universities count some 30,000 students from outside Quebec among their population. The contribution of these students to Montreal and Quebec society is a valuable source of wealth in terms of both cultural exchanges and the possibility that some of them will settle permanently in Quebec once their studies have been completed. The Board of Trade believes that the university system is an excellent gateway for attracting and welcoming talent and that initiatives in this regard, such as the Cité étudiante project in Montreal, should be supported.

D. Major challenges to meet

It bears remembering, however, that in terms of economic development, while active in several areas of the knowledge economy, Greater Montreal lags far behind its North American counterparts. For example, it ranks last out of 26 major urban centres in North America in terms of per capita GDP.¹⁴ Moreover, only 21% of its population over 25 holds a university degree, placing it 20th out of 26 major urban centres, far behind Washington, D.C., which heads the list at 37%.¹⁵

For the Board of Trade, it is clear that we have some serious economic catching up to do. For example, to reach Toronto's per capita GDP, which itself ranks only 23rd out of 26 in North America, Montreal would need five consecutive years of economic growth at a rate 5% higher than Toronto's. In this context, and despite an economic performance that places it at the rear of the pack, Montreal must leverage the exceptional asset represented by its university system - a

¹⁰ Fernand MARTIN, *Savoir et croissance, les universités: catalyseurs du Montréal métropolitain – Les retombées économiques*, Université de Montréal, February 2004, p. 9 (Data from this study has not been updated)

¹¹ Research Infosource Inc., *Canada's Top 50 Research Universities 2005*, November 2005, Web site of Montréal International:

http://www.montrealinternational.com/fr/chiffres/excel_innovation_fr/A_Fonds_investissements_en_recherche_universitaire_Comparaisons_canadiennes.xls

¹² Fernand Martin, *op. cit.*, p. 8.

¹³ Fernand Martin, *op. cit.* p. 12.

¹⁴ Montreal Metropolitan Community: *Vision stratégique – Document déclencheur*, October 2002, p. 29.

¹⁵ *Ibid.*, p. 40.

crucible of high knowledge that it must exploit to its full value and potential. Unfortunately, as we will see in the next section, the underfunding of Quebec's university system, compared to those in other regions of North America, seriously undermines our ability to achieve this objective, which is critical to the economy of Greater Montreal and Quebec as a whole.

2. The underfunding of Quebec universities: a reality of great concern

As with companies, the new competitive environment that Quebec and Montreal universities are facing is certainly not limited to Canada. Competition is felt across North America and, indeed, around the world. For example, for a scientific discovery to have an impact and bear fruit, it is not enough for researchers to be the first in Quebec to exploit it, they must be the first in the world. To be able to rise above this competition, our researchers and universities must be able to rely on optimal development conditions and possess the necessary financial means and infrastructures to pursue excellence.

In this context, the underfunding of universities demonstrated by the Conference of Rectors and Principals of Quebec Universities (CREPUQ) is of great concern to the Board of Trade. In a study conducted in 2002 with the Ministère de l'Éducation du Québec, CREPUQ estimated the 2002-2003 operating deficit of Quebec universities compared with other Canadian universities to be \$375.3 million.¹⁶ Given that competition is not limited to neighbouring provinces, it is equally disturbing to realize that the Quebec university system needs \$1.8 billion a year to match the funds available to its U.S. counterparts.¹⁷ Because this shortfall is a yearly occurrence, each passing year further erodes the ability of Quebec universities to compete with other institutions around the world. For the Board of Trade, this underscores the need to quickly resolve the issue of underfunding so as to permanently halt the disturbing slide of our universities.

The consequences of underfunding become most apparent when our universities must compete head on with the rest of Canada, the U.S., and Europe for the best professors and researchers. When the competition can offer better salaries, it is particularly difficult for Quebec to attract and retain talent. As the Board of Trade stated in its Policy Statement,¹⁸ "At a time when the creation of wealth relies on the mastery and innovative application of knowledge, the international competitiveness of the City of Montreal relies on a first-rate university system [...]. Universities must have the resources needed to produce top-level talent and create the synergy that will help attract and retain foreign professionals." Given that almost 75% of Quebec university research is conducted in Montreal, this is an issue that concerns all of Quebec.

¹⁶ CREPUQ-MEQ, *Rapport du Comité conjoint CREPUQ-MEQ sur le niveau des ressources*, November 2002, p. 19. (CREPUQ and the Ministère are currently working to update this data but, given inflation, the figure \$400 million may conservatively be advanced.)

¹⁷ Claude PICHER, 'L'heure juste sur les droits de scolarité', *La Presse*, March 15, 2003. p. E-3.

¹⁸ The Board of Trade of Metropolitan Montreal, *Policy Statement*, March 2002, Web site: <http://www.cmm.qc.ca/asp/contenu.asp?lang=1&GrSection=7&Rubrique=236> (last consultation 04/02/05).

3. Improving the funding of higher education: a necessity according to the Board of Trade

Given the importance of the university system for the Greater Montreal economy, and by extension for that of Quebec, the extent of the current underfunding calls for a significant re-investment in higher education.

The Board of Trade believes that, before trying to establish who is responsible for assuming the cost of these additional investments, it is worth asking who, in the end, will benefit the most from them. The Board of Trade believes that the benefits of a high quality, world-class university system are felt on four levels:

- by the students who, once they enter the workforce, generally reap the benefits of their university education by earning higher salaries;
- by the Quebec government, which collects additional revenues from university educated workers and companies that use the technologies and techniques developed in the research arena, thus allowing it to better fulfil its responsibilities to citizens;
- in the ability to attract and retain foreign talent at a time when, within just a few years, the net growth of the labour force will depend on immigration;
- by companies, which increasingly rely on human capital and university-generated innovations.

In this context, the Board of Trade believes that everyone who stands to benefit should be asked to contribute. Students, the government, and the business community should thus all be called upon to contribute to higher education that meets our needs and expectations. In this section, the Board of Trade presents some of the ways these contributions could be made.

A. Dedramatize higher tuition fees

Insofar as students also realize the need for additional investments in the university system to maintain world-class teaching and training, the Board of Trade recommends that the government quickly contemplate increasing tuition fees.

In 2006-2007, it costs \$1,668 in current dollars to undertake university studies. When converted to constant dollars – taking into account the freeze on tuition fees but eliminating the variations in purchasing power – this amount is \$361 less than what it was in 1994-1995. Yet the shortfall is larger in Quebec. In fact, simply indexing tuition fees to the cost of living – thereby taking inflation into account – would have increased those same fees to \$2,128, injecting an additional \$87 million into the system in 2006-2007 alone¹⁹. Over ten years, the amount generated would have been almost \$487 million.

Quebec has clearly created the situation in which it finds itself today by maintaining its freeze on tuition fees. Indeed, a closer look at Ontario and Quebec shows that, all things being equal, the contribution of Ontario students to their university education is 192% higher than the average contribution of Quebec students, i.e., \$4,881 per year in Ontario compared to \$1,668 in Quebec in

¹⁹ CREPUQ, *Le système universitaire québécois : données et indicateurs*, page 5, 2006.

current dollars.²⁰ Excluding Quebec, the Canadian average of \$4,643 per year is more than double the amount paid by Quebec students.

The main reason cited to justify maintaining this freeze is the need to guarantee that all Quebecers have access to higher education. However, the facts increasingly show that this is nothing more than a myth raised to the status of dogma. In fact, enrolment figures in the rest of the country and in the U.S. show no correlation whatsoever between higher tuition fees and accessibility to higher education. Indeed, the Quebec experience in this regard seems to prove the same thing: In the years following the lifting of the freeze by the Government of Quebec in 1989, the Ministère de l'Éducation observed an increase in the number of students attending Quebec universities.²¹

For the Board of Trade, increasing tuition fees is a sure way to improve university funding and to ensure these institutions can offer students a high-quality education. While a costly venture for students, higher education is a remarkably profitable and proven investment that will serve them well throughout their careers. In this regard, a recent study conducted by the TD Financial Group shows that the return on investment for students with a university education in Canada is somewhere between 12% and 20%, depending on their field of study.²² Thus, given the clear benefits they derive, the Board of Trade does not think it is right that maintaining the freeze and not indexing tuition fees means that students end up paying less for their education from year to year.

That said, the Board of Trade believes that there are many creative ways for students to assume a greater share of the cost of their education without rendering access to higher education beyond the reach of the less privileged. For example, tuition fees could vary according to such parameters as the income the graduates earn once they join the workforce or according to the costs inherent to their field of study. As well, part of the increase collected by universities should systematically be redirected to the government's financial assistance plan to ensure accessibility to less privileged students.

B. An indispensable government contribution

While supporting the idea of increasing tuition fees to finance higher education, the Board of Trade strongly opposes any reduction in the government's current contribution. On the contrary, the Board of Trade believes that, like students, the government should make additional efforts to help put an end to the underfunding problem. In addition to its current contribution, if the government injected a dollar for every additional dollar required of students, it would send a clear, constructive message: the good health of the university system is critical to the economic and social development of Quebec society and everybody must do their part.

In line with this approach, the government's first step should be to increase its investment in the operating budgets of Quebec universities, making up half the deficit in general operating resources each year – which CREPUQ assessed at \$375.3 million in 2002-2003 – the other half coming from increased contributions from students. This new government investment in Quebec universities of \$187.7 million annually would amount to an increase of 0.31% of its total budget (\$59.3 billion) and 1.4% of the total education budget of \$12.7 billion.

²⁰ Ibid, page 71.

²¹ Government of Quebec, *Répertoire des organismes et des établissements d'enseignement*, Les Publications du Québec, 1996 edition, pp. 299-332.

²² TD Financial Group, *Investing in a post secondary education delivers a stellar rate of return*, January 2004, Web site: http://www.td.com/economics/topic/ca0104_education.pdf (last consultation 04/02/05).

C. The business community: a call for greater leadership

For the Board of Trade, the Quebec business community – and especially companies in the metropolitan area that benefit from the vitality of Montreal universities – should also be required to do their part to promote the excellence of the university system. While the business community cannot be expected to contribute directly to the increased funding of higher education in the same way suggested in this brief for students and the government, it can make a real difference by assuming a greater leadership role in education, training, and research. In this regard, just as there is room for creativity in finding ways to increase the contribution of students, we should also explore new ways for companies to help the university system.

Over the past few years, the private sector has often been one of the most generous investors, injecting money into the city's universities through foundations, for example. In addition to continuing this practice, the Board of Trade believes the business community can do even more by involving more players, be it companies or individuals. In French-speaking universities, for examples, corporations are often the biggest donors to foundations, whereas in English-speaking universities, individuals are the biggest contributors. Why should it not be a standard practice for businesses to invite and encourage employees to make contributions to their own alma maters?

Another way to generate a ripple effect in corporate financial support would be to find ways to mobilize and coordinate the actions of donors; for instance, companies in a given industry could get together and jointly organize the financial support they often already offer to universities. In addition to encouraging this practice among other members of the same sector— and increasing the amounts donated thanks to a ripple effect—this practice could strengthen exchanges between academia and industry.

Still in the same vein of promoting a collaborative approach to the funding of universities, where everyone must roll up their sleeves and contribute more, it would be particularly useful to set up new mechanisms whereby the private sector could partner with students – former, current, and future - to defray the higher tuition costs.

One of these mechanisms could be to allow employers to repay the student loans of their recently graduated employees, making this contribution an eligible expense under Bill 90, the legislation requiring large companies to invest 1% of their payroll in employee training. In addition to providing a recognized mechanism for encouraging companies to contribute to the funding of higher education, this proposal has the advantage of recognizing the value to companies of the university education of new graduates.

Moreover, this formula could put to good use certain funds – sometimes large amounts – that are not being used by companies to train employees. From a longer-term perspective aimed at helping future students assume higher tuition fees, another option would be to call upon companies to encourage employees with children to save for their higher education. Thus, just as a company can contribute to an employee's RRSP, it would be able to do the same to the employee's Registered Education Savings Plan (RESP), with the amounts contributed considered a salary expense.

Conclusion

In many respects, the first two sections of this brief may appear to state the obvious:

- Montreal, the economic engine of Quebec, absolutely needs the contribution of its university system if we want to see Greater Montreal and Quebec fully participate in the global knowledge economy
- compared with other higher education and research institutions throughout North America, our university system does not have the means necessary to compete successfully
- consequently, university funding must be quickly increased.

Although these observations meet with unanimous agreement, however, the solutions proposed are often conflicting. In this brief, the Board of Trade wishes to contribute to the discussion in a way it considers both responsible and constructive.

In the Board of Trade's opinion, it is high time for all those who benefit from a quality university system to be held collectively accountable for its underfunding. Concretely, this means that businesses, students, and the government must all do what it takes to boost university funding. This proposal stems from a simple observation: no one in Quebec has the means to assume the cost alone. As well, insisting that the government shoulder the full burden of university funding is tantamount to ensuring the backsliding of our universities, and by extension, all of Quebec, in the knowledge economy.

Ultimately, the first step to resolving the problem of university underfunding in Quebec is to have students, the business community, and the government agree that they must all do their part. Once this has been done, it will be far easier to find creative, effective measures to optimize the contributions of each one while ensuring that financial considerations do not prevent young Quebecers from accessing a high-quality university education. The Board of Trade hopes this brief will help provide Quebec with an opportunity for constructive dialogue and bring us one step closer to building the consensus we need regarding the simple fact that when it comes to university funding, everyone must do their part.