Education at a Glance 2006

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OECD Briefing Note for Italy

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Over the past generations, Italy has seen significant progress in the proportion of adults acquiring baseline qualifications, but there remains a significant gap to the best performing countries in terms of quantity, quality and equity.

- On average, adults in Italy have received just slightly more than 10 years of education, the 4th lowest figure among OECD countries (Chart A1.1 based on Table A1.5). However, while only 28% of today's 55-to-64-year-olds had acquired an upper secondary qualification, which the OECD considers the baseline qualification for success in modern economies, among today's 25-to-34-year-olds it is now 64% (Table A1.2a). Only Greece, Ireland, Korea and Spain have seen faster progress than Italy over this period.
- Progress in educational attainment has been driven by increased completion rates among females. While 45-to-54-year-old women had received slightly more than half a year of education less than their male counterparts 2 decades ago, the situation has reversed and 25-to-34-year-old women now have slightly more than half a year of education more than males (Chart A1.5 based on Table A1.5).
- Nevertheless, upper secondary attainment even among young adults remains far below the OECD average and even more significant challenges become visible when quality and equity of schooling outcomes are taken into account. Students at age 15 display low levels of education performance relative to most of their OECD counterparts. With a mean score of 466 on the PISA mathematics scale, Italy is outperformed by all OECD countries but Greece, Mexico and Turkey (Chart A4.1 based on Table A4.3). More worryingly, a significant proportion of students remains left behind, with nearly a third of students of upper-secondary age being unable to display the minimum level of mathematics proficiency needed to succeed in their professional and private life (Chart A6.1 based on Table A4.1). Social background plays a significant role in determining student success in Italy: Students in the quarter with the lowest socio-economic status are

3.1 times more likely to be among the quarter of poorest performers than students with the highest socio-economic status (Table A6.1).

- Italy also displays a comparatively high variation in the quality of school performance (Chart A5.1 based on Table A5.1). It is notable that the proportion of performance variation that lies between schools has increased by more than 10 percentage points between the 2000 and 2003 alone (Box A5.1).

The increased emphasis on early childhood education may help to address disparities in schooling outcomes.

- Education in Italy can increasingly build on a strong foundation in early childhood. Italy now shows one of the highest participation rates among 3-to-4-year-olds in education – together with Belgium, France, Spain and the partner country Israel (Table C1.2). This is accompanied by comparatively high levels of investment in pre-primary education, that show Italy, with USD 6,116 per child in pre-primary education, at rank five behind Austria, Iceland, the United Kingdom and the United States (Table B1.1a).

Failing to meet baseline qualifications comes at increasingly high costs

- Individuals with less than upper-secondary education are less likely to be in employment than their more educated peers: in Italy only 52% of 25-to-64-year-olds with less than upper-secondary education are employed, compared to 74% for those with upper-secondary or post-secondary non-tertiary education and 82% for tertiary graduates (Table A8.3a). For women these differentials are most pronounced: Only about a third of women with less than upper-secondary education are in employment (Chart A8.2 based on Web Tables A8.3b and A8.3c).

- Although unemployment rates have decreased since 1995 for all levels of educational attainment in Italy, the decrease in unemployment has been steeper for individuals with upper-secondary or tertiary education than for those with less than upper-secondary education. These trends suggest that improvements in the labour market situation have benefited mostly individuals possessing baseline qualifications. In 2004, 7.8% of low educated adults are unemployed, while the rate drops to 4.8% for tertiary-educated workers (Table A8.4a).

- In the case of young adults, the transition from school to work is also more difficult for those with low levels of education. In Italy 11.9% of 25-to-29-year-olds with less than upper-secondary education are not in education and unemployed, resulting in high social costs, while this proportion drops to 7.2% for those having attained upper-secondary education (Chart C4.1 based on Table C4.3).

- Besides employment prospects, failure to possess baseline qualifications also has a cost in terms on earnings. Individuals with less than upper-secondary education bear a high earnings penalty compared to their counterparts having upper-secondary and even more so tertiary education. In Italy, earnings of 25-to-64-year-olds with less than upper-secondary education are 22% lower than those of individuals with upper-secondary education, and half the level earned by university graduates (Chart A9.2 based on Table A9.1a).

- Last but not least, the Italian system of continuing education and training is insufficiently developed to allow individuals lacking baseline qualifications to acquire them at later stages of their working lives. Indeed, Italy exhibits among the lowest participation rates in non-formal job-related training – with 4% only of 25-to-64-year-olds reporting participation in some type of non-formal job-related training during the past 12 months.

Furthermore, this aggregate participation rate masks large differences according to educational attainment of individuals, from 12% for tertiary graduates to only 1% for adults with less than upper-secondary education. As a result, Italians with less than upper-secondary education can expect to spend only 26 hours in non-formal job-related training over a typical working life (40 years) – *i.e.* barely more than 30 minutes per year. In other words, continuing education and training in Italy tends to reinforce, rather than moderate, disparities that arise from initial education and training (Chart C5.2 based on Table C5.1a).

More people around the world are completing university courses and other forms of tertiary education than ever before. Progress is also visible in Italy, but there are clear indicators that the demand for high qualifications is growing faster than the supply.

- Almost all OECD countries have seen a rise in tertiary qualifications over the past decades, and in some the increase has been spectacular. In absolute terms, the number of students enrolled in tertiary education more than doubled between 1995 and 2004 in Greece, Hungary, Iceland and Poland, and increased by more than 50% in the Czech Republic, Korea, Mexico, Sweden and Turkey (Table C2.2).

- Also Italy saw a 16% increase in tertiary enrolments (Table C2.2). Indeed, Italy doubled its graduation rate from tertiary-type A programmes between 2000 and 2004 – from 18.1 to 36.8% – an increase that can largely be attributed to the 2002 reform of tertiary education that now allows university students enrolled in long programmes to obtain a degree after 3 years of study (Chart A3.1 based on Table A3.1).

- Entry rates to universities or other institutions offering similar qualifications suggest that this trend will continue: 55% of an age cohort now enters tertiary-type A programmes at some stage during their life compared to 43% just 4 years before (Chart C2.1a based on Table C2.1).

- However, the effect of rising tertiary participation and completion on the qualifications of the workforce is only gradual. For instance, an increase in the graduation rate among young people 10 years ago will have affected about a quarter of people presently of working age. In the case of Italy, recent increases in entry and graduation rates from tertiary-type A programmes will be slow to translate into progress in the education level of the workforce, especially so given its demographic structure and ageing population (Chart A11.2 based on Table A11.1). Currently, Italy holds a "market share" of only 2.8% in the pool of university-level qualifications in the OECD among 35-64-year-olds (Table A1.4).

- In addition, progression in high-level skills needs to be seen in the context of developments elsewhere: In 2004, in Italy the entry rate to tertiary-type A programmes was slightly above the OECD average (53%) but still far lower than in Australia, Finland, Iceland, New Zealand, Poland and Sweden where entry rates reach or exceed 70%. This suggests that differences in tertiary educational attainment are likely to widen in the years to come (Table C2.1).

Rising tertiary education levels among citizens seem generally not to have led to a decrease of the labour-market value of qualifications…

- Rising tertiary education levels among citizens seem generally not to have led to a decrease in the labour-market value of qualifications as these have become more readily available. On the contrary, among the countries in which the proportion of young adults (25-to-34-year-olds) with tertiary qualifications increased by more than 5 percentage points in the past 2 decades – Australia, Belgium, Canada, Finland, France, Greece,

Iceland, Ireland, Japan, Korea, Luxembourg, the Netherlands, Norway, Poland, Portugal, Spain, Sweden and the United Kingdom (Table A1.3a) – most have seen falling unemployment (Table A8.4a) and rising earnings benefits (Table A9.2a) among tertiary graduates over the last decade.

In Italy, higher education has a high pay-off, and increasingly so

- In general, people with tertiary qualifications command significantly higher salaries than those with only secondary education. In Italy, earnings for tertiary graduates in the age group 25-64 years are 53% higher on average than those for people with only upper-secondary or post-secondary non-tertiary education – a comparatively high earnings advantage compared to most other OECD countries – placing Italy after the Czech Republic, Hungary, Poland, Switzerland, the United Kingdom and the United States (Table A9.1a).

- Moreover, the wage premium of possessing tertiary qualifications compared to earnings of individuals who ended their education at the upper-secondary or post-secondary non-tertiary education increased dramatically over a fairly short period: from a 27% to a 53% wage premium between 1998 and 2002 – *i.e.* a 26 percentage points increase (Table A9.2a). This suggests that the demand for advanced qualifications is rising faster than the supply.

Tertiary education is rapidly becoming an international domain.

- In 2004, 2.7 million students were enrolled in the OECD area outside their country of origin (Table C3.6), with more than half of them choosing France, Germany, the United Kingdom and the United States as their destination. By contrast, Italy is a comparatively minor destination for international students, with only 2% of foreign students worldwide enrolled in Italy (Chart C3.2 based on Table C3.8).

- Despite a 63% increase in the number of foreign students enrolled in Italy between 2000 and 2004, the latter represent no more than 2% of total tertiary enrolments, placing Italy amongst the least internationalised countries (Table C3.1).

Italy spends comparatively high amounts per students up to upper-secondary education…

- The comparatively poor performance of Italy on baseline qualifications cannot be tied to low investment. In Italy, annual expenditure per primary and secondary student is well above the corresponding OECD averages – at USD 7,366 for primary students and USD 7,938 for secondary students compared to respectively USD 5,450 and USD 6,962 in the OECD (Chart B1.2 based on Table B1.1a). Moreover, expenditure per student increased by 10% in real terms in primary, secondary and post-secondary non-tertiary education between 1995 and 2004 alone (Chart B1.7 based on Table B1.5).

- Over the theoretical duration of primary and secondary studies, Italy invests USD 100,437 per student – the 7th highest level of investment in the OECD behind Denmark, Iceland, Luxembourg, Norway, Switzerland and the United States and more than 30% above the OECD average (USD 77,204) (Chart B1.5a based on TableB1.3a).

…but the choice to spend most of the resources in a large number of comparatively poorly paid teachers, as well as in long instruction hours, is not obvious..

- In Italy, most of financial resources in primary and secondary education are invested in providing long instruction hours with very low student to teaching staff ratios. Indeed, Italy reports the third-highest duration of intended instruction time among OECD

countries – with nearly 8000 hours scheduled between the ages 7 and 14 – second only to Australia and the Netherlands (Chart D1.2 based on Table D1.1).

- Low student to teaching staff ratios contribute to below average class sizes in Italy, with on average 18.4 students per class in primary education and 20.9 students in lower-secondary education compared to 21.4 and 24.1 respectively on average in OECD countries (Chart D2.2 based on Table D2.1).

- Italy also reports below average student to teaching staff ratios from pre-primary through upper-secondary education. In primary education, the student to teaching staff ratio stands at 10.7 students per full-time equivalent teacher – the lowest level among OECD countries and well below the OECD average of 16.9 students per teacher. Student to teaching staff ratios are similarly low in secondary education at 11 students per full-time equivalent teachers compared to 13.3 in the OECD (Chart D2.4 based on Table D2.2).

- The fact that the performance of 15-year-olds in the major subject areas of reading, mathematics and science is well below the OECD average raises questions about the efficiency of these spending choices. Indeed, the subject areas of reading, mathematics and science account for 42% of instruction time for 12-to-14-year-olds in Italy, slightly more than in a typical OECD country (41%) but significantly more in real terms when taking into account the high instruction time of Italy (Tables D1.1 and D1.2b). Hence the association of high instruction hours in key subject areas with favourable student to teaching staff ratios and class sizes do not seem to pay off in terms of student outcomes.

- By contrast with these comparatively favourable student learning conditions, teacher salaries continue to be low by OECD standards: in lower-secondary education, teachers with 15 years of experience earn USD 31,291 in 2004 compared to USD 37,488 on average in OECD countries. Similar patterns can be observed in primary and upper-secondary education, where teacher salaries in Italy stand about 20% below the OECD average after adjustment with purchasing power parities. Teacher salaries are not only low by OECD standards in Italy, they also increased comparatively slowly: it takes 35 years for a teacher to reach the top of the salary scale, compared to 24 years in OECD countries on average (Chart D3.1 based on Table D3.1).

- In part, these low salaries are compensated by a comparatively low average number of annual hours that primary and lower-secondary teachers have to teach in Italy – 726 hours in primary and 594 hours in lower-secondary education compared with OECD averages of 805 and 704 hours respectively (Chart D4.2 based on Table D4.1). In addition, teacher salaries have improved in real terms since 1996, by 11 to 13% depending on levels of education and experience (Chart D3.3 based on Table D3.3).

In contrast to the situation of primary, secondary and post-secondary non-tertiary education, Italy invests comparatively little on tertiary education …

- By contrast with the situation of primary, secondary and post-secondary non-tertiary education, Italy spends comparatively little on tertiary education relative to its OECD peers. With 0.9% of its GDP devoted to tertiary education, Italy and the Slovak Republic are the only OECD countries to spend less than 1% of their GDP on tertiary education, and stand 0.5 percentage point below the OECD average. Investment in tertiary education relative to GDP is also lower in Italy than in the partner countries Chile and Israel (Chart B2.2 based on Table B2.1b).

- With USD 8,764 spent annually per tertiary student, Italy invests at least 20% less in the highly skilled than its OECD peers – USD 11,254 on average – although expenditure per tertiary student in Italy remains above the spending levels of the Czech Republic, Greece,

Hungary, Iceland, Korea, Mexico, Poland, Portugal and the Slovak Republic (Chart B1.2 based on Table B1.1a).

- In addition, a sizeable proportion of expenditure on tertiary institutions corresponds to Research and Development activities in Italy (Chart B6.2 based on Table B6.1). The comparison of expenditure per tertiary student on core education services reveals an even less favourable situation, with expenditure per tertiary student in Italy now 30% below the OECD average – at USD 5,658 compared to USD 8,093 in the OECD – before Greece, Mexico, Poland, the Slovak Republic and Turkey (Table B1.1a).

…although demographic trends provide scope for increased spending per capita…

- However, the favourable demographic context of Italy – characterised by decreasing population of tertiary school-age (Chart A11.2 based on Table A11.1) – provides scope for increasing resources per student in tertiary education despite increasing participation rates. Indeed, expenditure on tertiary education has increased faster than enrolments in Italy between 1995 and 2003, with changes of 37 and 7% respectively, resulting in a 28% increase in expenditure per tertiary student – a remarkable increase when compared to the 6% increase in OECD countries on average (Chart B1.7 based on Table B1.5).

- Italy devotes 60.2% of its current expenditure on tertiary education to the compensation of staff. This is more than 5 percentage points below the OECD average (65.5%), suggesting that Italy manages to limit the financial burden of staff compensation relative to other countries (Table B6.2). One explanation for this is the high student to teaching staff ratios observed in tertiary education, with 21.6 students per teacher on average – the 3rd highest across OECD countries after Greece and Korea – while this ratio is only 15.5 student per full-time teacher on average in OECD countries (Chart D2.4 based on Table D2.2)

…and private resources are increasingly drawn upon to fund Italian tertiary education…

- With 27.9% of tertiary education expenditure funded from private sources, Italy stands above the OECD average (23.6%) in terms of the contribution of the private sector to tertiary education funding, and is one of the leading EU countries in that respect behind Poland and the United Kingdom (Chart B3.1 based on Table B3.2b).

- This is the result of significant changes over the past decade in the way tertiary education is funded: Indeed, Italy is among the countries with the highest increases in the private contribution to the funding of tertiary education. The relative share of private expenditure rose from 17.1% to 27.9% of spending on tertiary institutions between 1995 and 2003, only Australia saw a faster increase in the private share of educational funding (Chart B3.3 based on Table B3.2b).

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