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How Bad Is Being Poor For Educational Performance? A Message from PISA 2012

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Abstract

This paper studies how high and low performance depends on the students' family environment, in the OECD countries, using the data on mathematical competencies in PISA 2012. In particular, we compare the results of those students coming from disadvantaged and advantaged families, identified with those in the first and fourth quartiles of the distribution of the index of Economic and Socio-Cultural Status. The results show that the differences in the educational systems between the OECD countries are larger than usually recognised. They also make it clear that socio-economic conditions strongly determine the distribution of high and low performers, with substantial differences between the countries.

Key-words: PISA, OECD, high and low performers, advantaged and disadvantaged families, discrimination from above and from below.

Disclaimer: The judgements contained in this paper express the views of the author and not those of the OECD or any of its state members.

INTRODUCTION

PISA is the acronym of the Programme for International Student Assessment (PISA). This is a triennial worldwide study, coordinated by the OECD, which provides the broadest dataset for the evaluation of the scholastic performance of 15-year-old schoolchildren's and the characteristics of their schools and families. The aim of the PISA is to help improving educational methods and outcomes by means of international comparisons based on empirical evidence. Some half a million students completed the assessment in 2012, representing about 26 million 15-year-olds in the schools of the 65 participating countries and large economies. Students also provide information on their personal background, their learning habits, their attitudes towards studying, and their engagement and motivation.

The PISA establishes six levels of educational proficiency, parameterized in terms of the scores of the tests that students perform for each subject. Each level incorporates new competencies to the former one. The distribution of the students into those levels of proficiency provides rich information on the functioning of educational systems, which is not reflected in the average scores or the associated ranking of countries. A simple inspection of the data regarding the distribution of the students among those levels of competence shows that there is a large diversity, even between countries with similar average scores. Those differences are particularly relevant at the tails (the percentages of high and low performers). The OCDE pays an increasing attention to those outcome distributions (see for instance OCDE (2014, vol. I, Ch. 2)).

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Two among those levels of proficiency have a special significance, according to the OECD, as they provide the goalpost identifying high and low performance. Students with level 5 or above are considered as high performers whereas level 2 is associated to the baseline level of proficiency, so that those students below level 2 are regarded as low performers.

PISA also provides rich information on the students' family and school environment, in particular regarding socio-economic conditions that are summarised in an index of Economic and Socio-Cultural Status (ESCS). The ESCS is a composite measure made of the following variables: the International Socio-Economic Index of Occupational Status (ISEI); the highest level of education of the student's parents, converted into years of schooling; the PISA index of family wealth; the PISA index of home educational resources; and the PISA index of possessions related to "classical" culture in the family home. Combining the data on performance with those of socio-economic conditions permits evaluating the degree of equity of educational systems, in the understanding that more equity means less dependence of the results on the family environment.

The OECD offers several measures of the degree of equity of educational systems, linking average scores with family characteristics (e.g. the so-called socio-economic gradient or the share of resilient students). Yet the distribution of the students among the proficiency levels by social groups is not integrated in the institutional analysis of equity.

Our aim here is contributing to the literature on the analysis of how children's educational outcomes depend on the socio-economic characteristics of their families. This is a conventional issue addressed by the PISA reports and by many researchers, as it is well established that the family environment affects students' outcomes, at least since the Coleman's report in the mid Sixties (see for instance Willms (2006), Lefranc, Pistolesi & Trannoy (2009), Chechi & Peragine (2010), Ferreira & Gignoux (2011a, b), Gamboa & Waltenberg (2011, 2012), Carvalho, Gamboa & Waltenberg (2015), or Tansel (2015)). More specifically, we aim at studying how high and low performers are distributed among students coming from disadvantaged and advantaged families, identified with those in the first and fourth quartiles of the distribution of the index of Economic and Socio-Cultural Status (ESCS). Our approach is descriptive and the comparison will be made in terms of a simple measure of discrimination, much in the spirit of the Palma ratio that is common nowadays in the analysis of income distribution. We focus on the results for the OECD countries in the field of mathematics, which is the main subject in the 2012 PISA wave (the last results available). This is a particular way of enriching the evaluation of educational systems by incorporating part of the diversity that countries exhibit regarding the distribution of outcomes by levels of proficiency between social groups.

The paper is organised as follows. Section 2 presents the distribution of high, medium, and low performers in the OECD, illustrating on the between countries variability of the top and bottom levels of proficiency. Section 3 extends this analysis by studying how those distributions vary within countries as a function of socio-economic conditions. We also present for each country a binary measure of discrimination by comparing the ratios of high and low performers for advantaged and disadvantaged families. A few final words in Section 4 close the work.

HIGH AND LOW PERFORMERS

We have already mentioned that PISA considers level 2 as the baseline of proficiency at which students begin to demonstrate the skills that will enable them to participate effectively and productively in life. Those students below level 2 are thus considered as low performers. On the opposite side, students with level 5 or above are regarded as high performers.

Table 1 describes the correspondence between levels of proficiency and scores of the test (see PISA 2014, Ch. 15). We shall adopt the convention of calling medium performers to those students in levels 2, 3 and 4. The table also provides the percentage of students within each cell, for the OECD as a whole.

Table 1: High and Low performers in mathematics (PISA 2012)

Categories	High performers	Medium performers	Low performers
Scores	**> 607**	**607 -420.1**	**< 420.1**
OCDE students (%)	12.6	64.4	23

According to the PISA report, "At Level 2, students can interpret and recognise situations in contexts that require no more than direct inference. They can extract relevant information from a single source and make use of a single representational mode. Students at this level can employ basic algorithms, formulae, procedures or conventions to solve problems involving whole numbers. They are capable of making literal interpretations of the results." There is evidence, particularly longitudinal studies developed in Australia, Canada, Denmark and Switzerland, showing that students who perform below Level 2 often face severe disadvantages in their transition into higher education and the labour force in subsequent years. Consequently, "the proportion of students who perform below this baseline proficiency level thus indicates the degree of difficulty countries face in providing their populations with a minimum level of competencies." (cf. OECD (2014, vol. I, p. 68)).

"At Level 5, students can develop and work with models for complex situations, identifying constraints and specifying assumptions. They can select, compare and evaluate appropriate problem-solving strategies for dealing with complex problems related to these models. Students at this level can work strategically using broad, well-developed thinking and reasoning skills, appropriate linked representations, symbolic and formal characterisations, and insights pertaining to these situations. They begin to reflect on their work and can formulate and communicate their interpretations and reasoning." (OECD (2014), vol. I, p. 63)).

Table 2 provides the information regarding the distribution of high, medium and low performers in the OECD countries. We have also included in the last column the average scores (the mean value of the students' tests for each country) normalised so that the mean value of the OECD equals 1. The data show that the variability of the percentages of high and low performers among those countries, as measured by the coefficient of variation, is more than four and a half times that of that of medium performers (and more than seven and a half times that of the average scores). That is, the main differences between OECD countries in the distribution of the levels of proficiency appear at the tails. Korea and Mexico represent the largest differences, much higher than those corresponding to their average scores. Denmark and New Zealand are also two interesting cases, as they have the same average scores but rather different distributions.

Table 2: Distribution of High, Medium and Low performers in the OECD countries

Country	High performers	Medium performers	Low performers	Average scores
Australia	14,81%	65,52%	19,67%	1,021
Austria	14,29%	67,06%	18,65%	1,023
Belgium	19,54%	61,49%	18,96%	1,042
Canada	16,40%	69,78%	13,83%	1,049

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Chile	1,58%	46,88%	51,54%	0,856
Czech Republic	12,88%	66,16%	20,96%	1,01
Denmark	9,97%	73,19%	16,84%	1,012
Estonia	14,60%	74,86%	10,54%	1,054
Finland	15,25%	72,48%	12,27%	1,05
France	12,89%	64,75%	22,35%	1,002
Germany	17,46%	64,81%	17,74%	1,04
Greece	3,90%	60,41%	35,69%	0,917
Hungary	9,26%	62,67%	28,06%	0,966
Iceland	11,15%	67,37%	21,48%	0,998
Ireland	10,65%	72,45%	16,90%	1,015
Israel	9,37%	57,13%	33,50%	0,944
Italy	9,92%	65,41%	24,67%	0,982
Japan	23,67%	65,27%	11,06%	1,086
Korea	30,90%	59,97%	9,13%	1,121
Luxembourg	11,23%	64,44%	24,33%	0,992
Mexico	0,63%	44,66%	54,71%	0,837
Netherlands	19,25%	65,96%	14,79%	1,059
New Zealand	15,00%	62,36%	22,64%	1,012
Norway	9,40%	68,29%	22,31%	0,991
Poland	16,74%	68,88%	14,39%	1,048
Portugal	10,63%	64,46%	24,91%	0,986
Slovak Republic	10,97%	61,57%	27,46%	0,975
Slovenia	13,71%	66,20%	20,09%	1,014
Spain	8,00%	68,39%	23,61%	0,98
Sweden	8,01%	64,92%	27,07%	0,968
Switzerland	21,37%	66,19%	12,44%	1,075
Turkey	5,87%	52,15%	41,98%	0,907
United Kingdom	11,83%	66,36%	21,81%	1
United States	8,77%	65,38%	25,85%	0,974
Coef. Var.	0,4720	0,0994	0,4497	0.059

The data in Table 2 clearly point out that the average scores do not reflect the existing differences between countries, as we are comparing countries in terms of a variable whose distribution has first been flattened within each county by taking expectations.

THE IMPACT OF SOCIO-ECONOMIC CONDITIONS

Comparing the distribution of high and low performers, as presented in Table 1, informs us about the different performance of the OECD educational systems. The next step in the analysis is finding out the relationship between the distribution of the levels of proficiency and the socio-economic characteristics of the population, within each country. Ideally, the level of proficiency achieved by a student should be independent on her family environment. This ethical principle is associated to the notion of equality of opportunity, developed by Arneson (1989), Cohen (1989), and Roemer (1993, 1998), among others. The idea is that the school should help compensating social differences so that the socio-economic characteristics of the

students should not determine their achievements. Let us remark that the PISA test is realised at the end of compulsory education for most of the participating countries. This is, therefore, an instance in which equality of opportunity is really important.

Equality of opportunity is certainly a lofty ideal, but there is evidence that some societies get closer to achieving it than others. Regarding compulsory education, results from PISA show that socioeconomically disadvantaged students in the OECD have much higher chances of being low performers than their socioeconomically advantaged peers. And, also, that they have much lower chances of being high performers.

We shall focus here on the distribution of high and low performers of schoolchildren coming from disadvantaged families vis a vis those coming from advantaged families. We identify disadvantaged families as those corresponding to the first quartile of the distribution of the index of Economic and Socio-Cultural Status (ESCS) (the bottom 25%). Advantaged families are defined here as those corresponding to the fourth quartile of the ESCS (top 25%).

Table 3 provides a first hint on how important is the family environment in the OECD.

Table 3: High and Low performers in the OECD by family type

	High performance	Low performance
Disadvantaged families	4,63%	37,16%
Advantaged families	24,68%	9,51%
Total	12%	23%

The data show that, on average across the OECD, almost 40% of students coming from disadvantaged families do not reach the baseline level of proficiency and less than 5% achieve the highest levels. The opposite is true for students coming from advantaged families: less than 10% do not reach the baseline level, while 25% do achieve the highest levels of proficiency.

Remark: A complete description of the distribution of the students between high, medium and low performers by quartiles of the ESCS, for each OECD country, is provided in the Appendix.

In other words, disadvantaged students are four times more likely to have competencies that put them at risk for their future participation in the labour market and society more broadly. In contrast, advantaged students are 5 times more likely than their disadvantaged peers to enjoy competencies that give them much better chances for the future.

The ratio of low performers between disadvantaged and advantaged students can be regarded as a rough measure of discrimination “from below” in an educational system. Similarly, the ratio of high performers between advantaged and disadvantaged students can be regarded as a measure of discrimination “from above”.

The degree of discrimination by socioeconomic status varies substantially between the OECD countries. Moreover, the type of discrimination, from below or from above, turns out to be very different within countries. Table 4 provides the data corresponding to the OECD countries. The definition of advantaged and disadvantaged families is country specific, that is, we have taken the first and fourth quartile of the ESCS distribution of each country. In this way we neutralise

the differences in wealth between the countries (even though the differences in the shape of the distributions remain).

Table 4: Discrimination "from below" and "from above" in the OECD countries

	Discrimination "from below"(*)	Discrimination "from above"(**)
Australia	4,3	4,5
Austria	5,2	5,7
Belgium	6,2	6,4
Canada	4,2	3,7
Chile	3,0	62,6
Czech Republic	4,6	7,6
Denmark	5,3	9,1
Estonia	4,9	3,6
Finland	4,4	3,4
France	8,7	8,7
Germany	5,2	5,4
Greece	3,2	30,1
Hungary	6,3	14,8
Iceland	2,8	3,3
Ireland	6,2	6,1
Israel	3,9	12,5
Italy	3,1	5,0
Japan	4,2	3,2
Korea	3,1	2,9
Luxembourg	5,3	10,4
Mexico	1,9	14,9
Netherlands	4,2	4,1
New Zealand	5,1	7,5
Norway	2,9	3,4
Poland	7,0	5,9
Portugal	6,0	8,4
Slovak Republic	5,5	10,6
Slovenia	4,9	6,3
Spain	4,8	6,9
Sweden	2,9	6,4
Switzerland	4,9	4,1
Turkey	2,5	10,5
United Kingdom	3,8	6,3
United States	4,3	7,9
OECD	3,9	5,3

(*) Number of times that a disadvantaged student gets a level below 2 with respect to an advantaged one.

(**) Number of times that an advantaged student gets a level 5 or above with respect to a disadvantaged one.

In Iceland, Korea and Norway, the results of advantaged and disadvantaged students are much closer than the OECD average, both for high and low performers. That is, those countries are doing much better than the average OECD country regarding equality of opportunity. The opposite happens in the case of Denmark, France, Hungary and Portugal, where both types of discrimination are much higher than the average OECD.

Discrimination from above turns out to be extreme in the cases of Chile and Greece, with values of 62 and 30 times for those students coming from advantaged families. Mexico, Luxembourg, Israel, Slovak Republic and Turkey also present high values for this type of discrimination. The contrary happens in Canada, Estonia and Finland, where discrimination from above is much smaller than in the OECD.

Chile, Greece, Italy, Mexico, Sweden and Turkey, present very low values of discrimination "from below". The contrary happens for Belgium, Ireland and Poland.

These data show that equality of opportunity in compulsory education is still an issue in the OECD. There are substantial differences between countries, so that the country in which a child is educated matters a lot. Moreover, socioeconomic conditions still play a very relevant role in educational achievements. This role is very different among OECD countries both regarding its intensity and the way in which it affects high and low performers.

FINAL REMARKS

We have presented here a descriptive analysis of the differences in the OECD countries between the distributions of the students by levels of proficiency and by family status. The data show that the distribution of the students by levels of proficiency is very different among the countries and that the average scores do not reflect those differences. In particular, the variability of average scores is much smaller than that of the distributions by levels of proficiency. We have also observed that the larger differences are found in the tails of the distributions, i.e. those corresponding to the shares of high and low performers.

We have provided an elementary measure of the impact of socio-economic conditions on those distributions, by comparing the shares of low performers of disadvantaged and advantaged families (discrimination "from below") and the shares of high performers between advantaged and disadvantaged families (discrimination "from above"). The degree of dependence between outcomes and socio-economic conditions is rather high, when focussing on high and low performance and varies a lot among countries regarding the degree of discrimination "from above" and "from below".

There are three key messages that derive from this study. First, the differences in the educational systems between the OECD countries are larger than usually recognised. Second, socio-economic conditions strongly determine the distribution of high and low performers, but there are substantial differences between the countries. And third, different countries exhibit different mixes of discrimination "from above" and "from below". There are two main policy implications that can be deduced from these data: (i) There is still a long way to go before reducing the importance of the country of origin and the family background; and (ii) Different

countries need different recipes to improve their educational systems, as the problems they present are diverse.

Let us conclude by pointing out that the data indicate that reducing low performance is the most effective way of improving the overall educational outcomes, due to the high negative correlation between low performance and average scores. In other words, making the educational system more inclusive is the best strategy to get simultaneously higher equity and higher efficiency. The recent report OECD (2016, ch. 5) provides evidence that shows that there are effective ways of reducing educational poverty in countries with very different characteristics.

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APPENDIX

HIGH, MEDIUM AND LOW PERFORMERS BY QUARTILES OF THE ESCS INDEX IN THE OECDE COUNTRIES

		High performers	*Medium performers*	*Low performers*
Australia	Q1	5,90%	61,16%	32,93%
	Q2	10,15%	68,38%	21,48%
	Q3	18,03%	68,96%	13,01%
	Q4	26,59%	65,70%	7,71%
	Total	**14,81%**	**65,52%**	**19,67%**
Austria	Q1	4,60%	61,47%	33,93%
	Q2	11,60%	67,63%	20,77%
	Q3	15,03%	72,36%	12,61%
	Q4	26,34%	67,18%	6,48%
	Total	**14,29%**	**67,06%**	**18,65%**
Belgium	Q1	6,02%	59,99%	33,99%
	Q2	12,20%	66,49%	21,31%
	Q3	23,21%	65,14%	11,65%
	Q4	38,34%	56,18%	5,48%
	Total	**19,54%**	**61,49%**	**18,96%**
Canada	Q1	7,75%	70,54%	21,72%
	Q2	12,97%	72,70%	14,33%
	Q3	17,81%	72,03%	10,16%
	Q4	28,72%	66,08%	5,19%
	Total	**16,40%**	**69,78%**	**13,83%**
Chile	Q1	0,08%	24,96%	74,96%
	Q2	0,68%	40,88%	58,43%
	Q3	0,68%	52,54%	46,78%
	Q4	4,98%	70,18%	24,85%
	Total	**1,58%**	**46,88%**	**51,54%**
Czech Republic	Q1	3,71%	58,78%	37,50%
	Q2	7,84%	70,69%	21,47%
	Q3	12,23%	71,77%	16,00%
	Q4	28,25%	63,51%	8,24%
	Total	**12,88%**	**66,16%**	**20,96%**
Denmark	Q1	2,41%	67,53%	30,06%
	Q2	5,08%	77,08%	17,85%
	Q3	11,36%	77,95%	10,68%
	Q4	21,83%	72,48%	5,69%
	Total	**9,97%**	**73,19%**	**16,84%**
Estonia	Q1	7,62%	76,53%	15,85%
	Q2	10,10%	76,93%	12,96%
	Q3	14,24%	76,82%	8,93%

	Q4	27,22%	69,53%	3,26%
	Total	**14,60%**	**74,86%**	**10,54%**
Finland	Q1	8,07%	71,81%	20,11%
	Q2	10,86%	76,02%	13,11%
	Q3	15,83%	75,76%	8,40%
	Q4	27,09%	68,30%	4,62%
	Total	**15,25%**	**72,48%**	**12,27%**
France	Q1	3,34%	56,36%	40,29%
	Q2	7,20%	66,46%	26,34%
	Q3	13,39%	72,68%	13,93%
	Q4	29,04%	66,31%	4,65%
	Total	**12,89%**	**64,75%**	**22,35%**
Germany	Q1	6,61%	62,28%	31,11%
	Q2	12,84%	68,67%	18,49%
	Q3	22,01%	68,56%	9,43%
	Q4	35,97%	58,09%	5,94%
	Total	**17,46%**	**64,81%**	**17,74%**
Greece	Q1	0,35%	46,34%	53,31%
	Q2	1,80%	57,20%	41,00%
	Q3	3,08%	66,20%	30,71%
	Q4	10,54%	72,78%	16,68%
	Total	**3,90%**	**60,41%**	**35,69%**
Hungary	Q1	1,53%	47,92%	50,55%
	Q2	4,76%	65,36%	29,88%
	Q3	8,63%	69,55%	21,83%
	Q4	22,60%	69,32%	8,08%
	Total	**9,26%**	**62,67%**	**28,06%**
Iceland	Q1	5,55%	63,15%	31,30%
	Q2	7,23%	69,44%	23,33%
	Q3	14,70%	68,34%	16,96%
	Q4	18,18%	70,73%	11,09%
	Total	**11,15%**	**67,37%**	**21,48%**
Ireland	Q1	3,43%	66,86%	29,71%
	Q2	7,25%	73,14%	19,61%
	Q3	11,55%	76,37%	12,08%
	Q4	20,91%	74,33%	4,76%
	Total	**10,65%**	**72,45%**	**16,90%**
Israel	Q1	1,60%	42,63%	55,78%
	Q2	5,75%	57,96%	36,29%
	Q3	11,58%	64,85%	23,57%
	Q4	19,91%	65,66%	14,42%
	Total	**9,37%**	**57,13%**	**33,50%**
Italy	Q1	3,46%	58,18%	38,36%

	Q2	7,57%	64,99%	27,44%
	Q3	11,73%	68,86%	19,42%
	Q4	17,18%	70,37%	12,45%
	Total	**9,92%**	**65,41%**	**24,67%**
Japan	Q1	11,81%	69,14%	19,05%
	Q2	18,82%	70,59%	10,59%
	Q3	27,80%	64,69%	7,51%
	Q4	38,12%	57,35%	4,53%
	Total	**23,67%**	**65,27%**	**11,06%**
Korea	Q1	16,34%	69,67%	13,99%
	Q2	24,31%	64,68%	11,02%
	Q3	35,08%	58,10%	6,82%
	Q4	48,15%	47,36%	4,49%
	Total	**30,90%**	**59,97%**	**9,13%**
Luxembourg	Q1	2,29%	55,20%	42,51%
	Q2	6,10%	65,24%	28,66%
	Q3	12,98%	70,87%	16,15%
	Q4	23,81%	68,18%	8,01%
	Total	**11,23%**	**64,44%**	**24,33%**
Mexico	Q1	0,12%	29,16%	70,72%
	Q2	0,20%	41,64%	58,16%
	Q3	0,43%	47,03%	52,54%
	Q4	1,78%	61,60%	36,62%
	Total	**0,63%**	**44,66%**	**54,71%**
Netherlands	Q1	8,42%	66,72%	24,86%
	Q2	13,66%	70,97%	15,37%
	Q3	22,29%	67,07%	10,64%
	Q4	34,25%	59,78%	5,98%
	Total	**19,25%**	**65,96%**	**14,79%**
New Zealand	Q1	4,30%	54,71%	40,98%
	Q2	10,53%	67,79%	21,68%
	Q3	14,75%	70,11%	15,14%
	Q4	32,34%	59,70%	7,97%
	Total	**15,00%**	**62,36%**	**22,64%**
Norway	Q1	4,68%	61,78%	33,54%
	Q2	6,45%	69,28%	24,28%
	Q3	11,70%	71,01%	17,29%
	Q4	15,72%	72,57%	11,71%
	Total	**9,40%**	**68,29%**	**22,31%**
Poland	Q1	5,77%	67,73%	26,49%
	Q2	10,14%	73,47%	16,39%
	Q3	17,50%	71,83%	10,67%
	Q4	33,99%	62,21%	3,80%

	Total	**16,74%**	**68,88%**	**14,39%**
Portugal	Q1	2,91%	54,89%	42,20%
	Q2	6,20%	66,78%	27,02%
	Q3	9,67%	70,84%	19,49%
	Q4	24,55%	68,38%	7,07%
	Total	**10,63%**	**64,46%**	**24,91%**
Slovak Republic	Q1	2,37%	45,91%	51,72%
	Q2	5,98%	67,54%	26,48%
	Q3	11,13%	68,71%	20,16%
	Q4	25,15%	65,41%	9,44%
	Total	**10,97%**	**61,57%**	**27,46%**
Slovenia	Q1	4,36%	62,22%	33,42%
	Q2	9,45%	67,46%	23,09%
	Q3	13,98%	69,98%	16,04%
	Q4	27,64%	65,56%	6,81%
	Total	**13,71%**	**66,20%**	**20,09%**
Spain	Q1	2,50%	57,83%	39,67%
	Q2	4,59%	68,54%	26,87%
	Q3	8,02%	74,38%	17,60%
	Q4	17,28%	74,45%	8,27%
	Total	**8,00%**	**68,39%**	**23,61%**
Sweden	Q1	2,48%	57,44%	40,08%
	Q2	5,21%	66,04%	28,75%
	Q3	9,40%	70,58%	20,02%
	Q4	15,81%	70,41%	13,78%
	Total	**8,01%**	**64,92%**	**27,07%**
Switzerland	Q1	9,18%	67,99%	22,83%
	Q2	15,60%	71,00%	13,40%
	Q3	23,50%	68,30%	8,20%
	Q4	37,95%	57,40%	4,65%
	Total	**21,37%**	**66,19%**	**12,44%**
Turkey	Q1	1,35%	41,76%	56,88%
	Q2	2,81%	51,44%	45,75%
	Q3	5,37%	52,98%	41,65%
	Q4	14,16%	63,12%	22,72%
	Total	**5,87%**	**52,15%**	**41,98%**
United Kingdom	Q1	3,98%	63,99%	32,03%
	Q2	6,97%	67,49%	25,54%
	Q3	12,57%	71,52%	15,91%
	Q4	25,20%	66,38%	8,42%
	Total	**11,83%**	**66,36%**	**21,81%**
United States	Q1	2,50%	56,49%	41,01%
	Q2	3,84%	65,46%	30,70%

	Q3	9,66%	70,17%	20,17%
	Q4	19,66%	70,86%	9,48%
	Total	**8,77%**	**65,38%**	**25,85%**
OECD	Q1	4,63%	58,21%	37,16%
	Q2	8,43%	66,34%	25,23%
	Q3	13,85%	68,44%	17,71%
	Q4	24,68%	65,81%	9,51%
	Total	12.6%	64.4%	23%