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POLICY NOTE ON LATIN AMERICA

BOOSTING
PRODUCTIVITY
THROUGH SKILLS
AND INNOVATION



INVESTMENT
ENERGY RISK MANAGEMENT
INFRASTRUCTURE INNOVATION
POPULATION GROWTH MIDDLE CLASS
GREEN GROWTH COMMODITIES
REGULATIONS
PRODUCTIVITY SKILLS
INDUSTRIALISATION
CREDIT



Policy Note

Boosting productivity through skills and innovation in Latin America

Abstract

This edition of the EMnet Latin America Policy Note provides insights on the role the private sector can play to foster productivity through investment in skills and innovation. Improving productivity in Latin America will require aligning skills with market demand, leveraging foreign direct investment (FDI) to support innovation and expanding infrastructure investments. The note provides an overview of education and skills policies in Latin America, offers business insights on productivity-related challenges and assesses policy makers' efforts to support productivity improvements. The analysis builds on discussions at the business meeting held on 5 June 2015 at the French Ministries of Economy and Finance in Paris and organised by the OECD Emerging Markets Network (EMnet).

Key messages include:

- Productivity improvements generated by investments in skills and innovation are essential to foster resilient long-term economic growth.
- Greater dialogue between educational institutions and the private sector is needed to address skills mismatch.
- Policies supporting foreign investment in research & development (R&D) are needed to encourage innovation spillovers and drive the growth of knowledge intensive industries.
- Education priorities can be further aligned with market demands for competencies such as English language skills.
- Facilitating the certification of training schemes developed by the private sector could encourage greater provision of corporate training to fill critical skills gaps.
- Developing institutional capacity and regional co-ordination to support investment in infrastructure development is necessary to unlock private capital flows.
- Greater use of debt capital markets can scale up finance for infrastructure. Firms are eager to see greater use of project bonds in the region.

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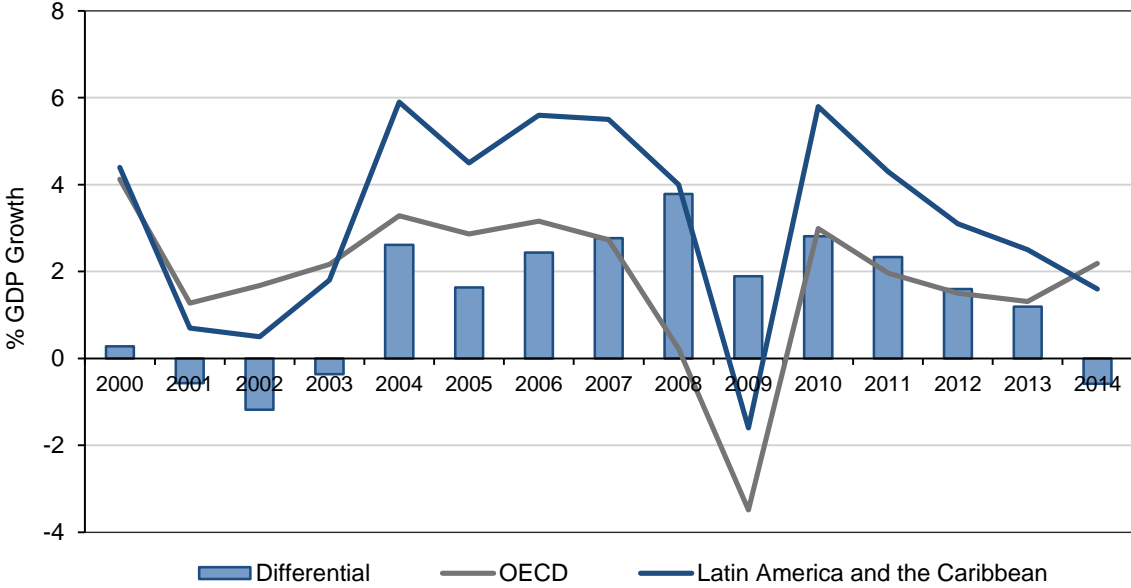
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BACKGROUND: LATIN AMERICA’S BUSINESS AND ECONOMIC OVERVIEW

The momentum of economic growth in Latin America and the Caribbean has been faltering since 2010. Like in 2014 and 2015, gross domestic product (GDP) growth in the region is projected to remain below the OECD average in 2016. In 2015, GDP in Latin America contracted by 0.3%, in sharp contrast to its 3.3% average annual growth rate of the previous decade. The region is expected to continue to struggle and grow below the OECD average in 2016, at -0.1% compared to 2.2% in the OECD economies.¹

Latin America’s GDP grew by only 1% in 2014, a weaker result than expected and well below the 5% growth rates of the 2000s (OECD, CAF and ECLAC, 2015). For the first time since 2003, growth in Latin America also has fallen below the OECD average (Figure 1.1). The *Latin America Economic Outlook 2016* attributes the slowdown to declines in commodity trade and overall external vulnerability (OECD, CAF and ECLAC, 2015).

Figure 1.1. GDP growth in Latin America and the Caribbean and in OECD countries



Source: OECD, CAF and ECLAC (2014), *Latin American Economic Outlook 2015*, <http://dx.doi.org/10.1787/leo-2015-en>.

The regional average masks high heterogeneity amongst the countries. In 2016, economic growth rates in Panama (5.9%), Nicaragua (4.5%) and the Dominican Republic (4.9%) are projected to be considerably higher than the Latin American average. In contrast, Argentina (-0.1%), Brazil (between -3.1% and -4.0%), Ecuador (-0.1%) and Venezuela (-6.3%) will experience contraction. The remaining biggest economies in terms of GDP, such as Chile (2.0%), Colombia (2.5%), Mexico (2.7%) and Peru (3.3%), are expected to experience positive but moderate economic growth compared to the performance observed since 2005.²

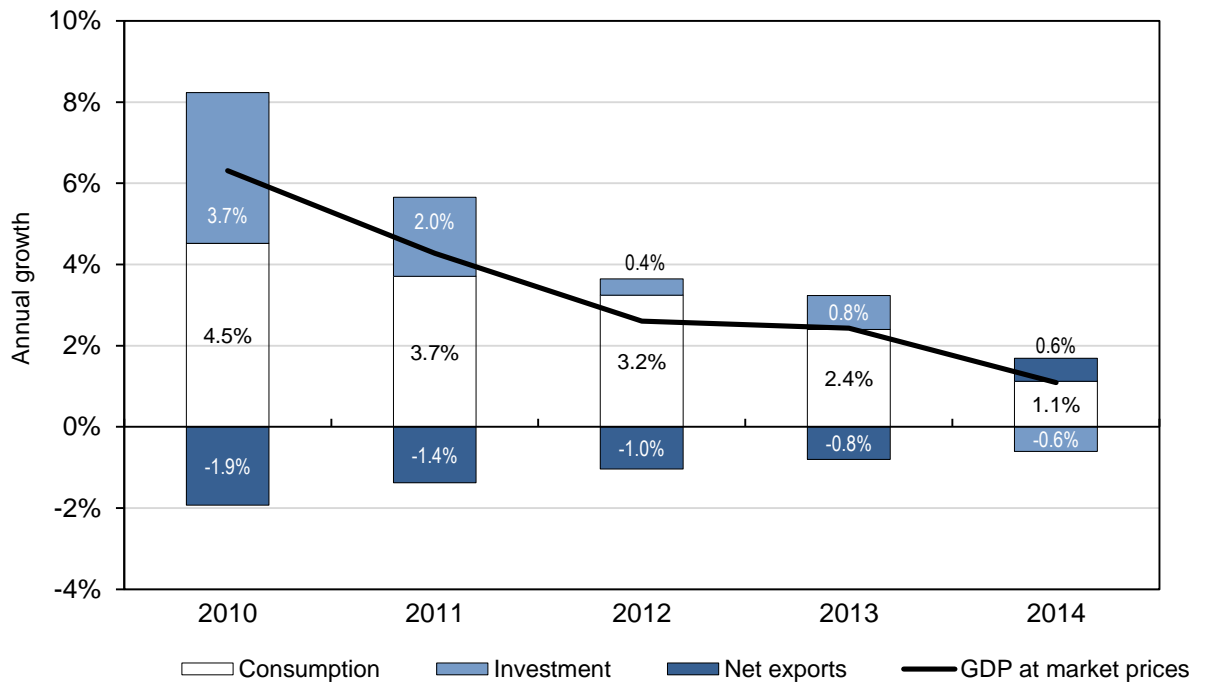
Manufacture exporters in Mexico and Central America that have integrated value chains with the United States are outperforming commodity exporters. Low commodity prices have hurt oil

and minerals exporters, but commodity exporters with strong monetary and fiscal frameworks such as Chile, Colombia and Peru are faring better than countries with weaker systems. Low oil prices are boosting growth prospects for energy-importing Central American and English-speaking Caribbean countries (OECD, CAF and ECLAC, 2015).

Loss of investment momentum

Following the 2008/09 global financial crisis, investment was an essential contributor to growth in Latin America. As shown in Figure 1.2, however, investment has been declining steadily since 2010, and by 2014 investment had become a negative contributor to regional growth (OECD, CAF and ECLAC, 2015).

Figure 1.2. GDP growth in Latin America and contribution of the demand component



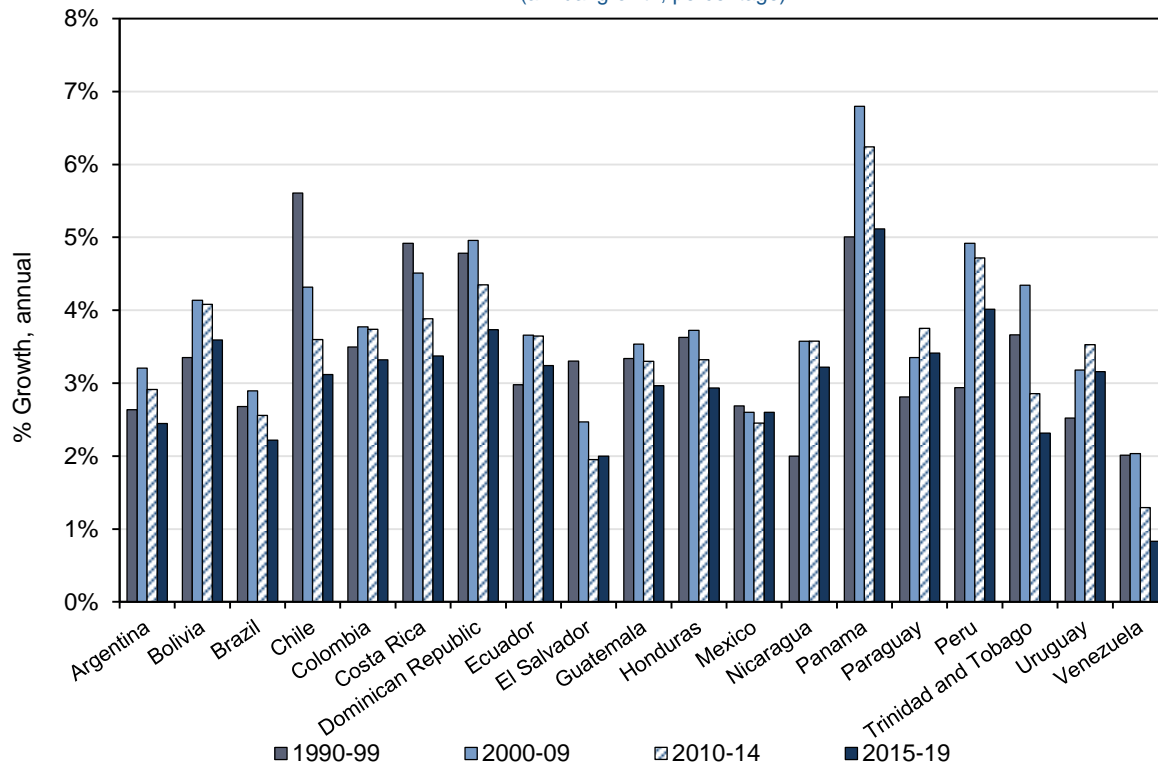
Source: OECD, CAF and ECLAC (2015), Latin American Economic Outlook 2016, <http://dx.doi.org/10.1787/9789264246218-en>.

The decline in investment can be attributed to reduced overall demand, weakened commodity prices and more challenging financial conditions. In addition, reform bills and general policy uncertainty have led companies to defer investment in countries such as Argentina, Chile, Colombia, Ecuador, El Salvador and Venezuela (OECD, CAF and ECLAC, 2015).

A key concern is that the weak medium-term growth rates of around 3% for Latin America do not indicate a temporary slowdown, but rather highlight a situation of lower overall growth potential. Figure 1.3 underscores the decline in output growth across the region. Traditional drivers of growth are fading in some middle-income countries, and new ways to boost productivity need to be identified.

Figure 1.3. Trends in output growth in selected economies in Latin America

(annual growth, percentage)



Source: OECD, CAF and ECLAC (2015), *Latin American Economic Outlook 2016*, <http://dx.doi.org/10.1787/9789264246218-en>.

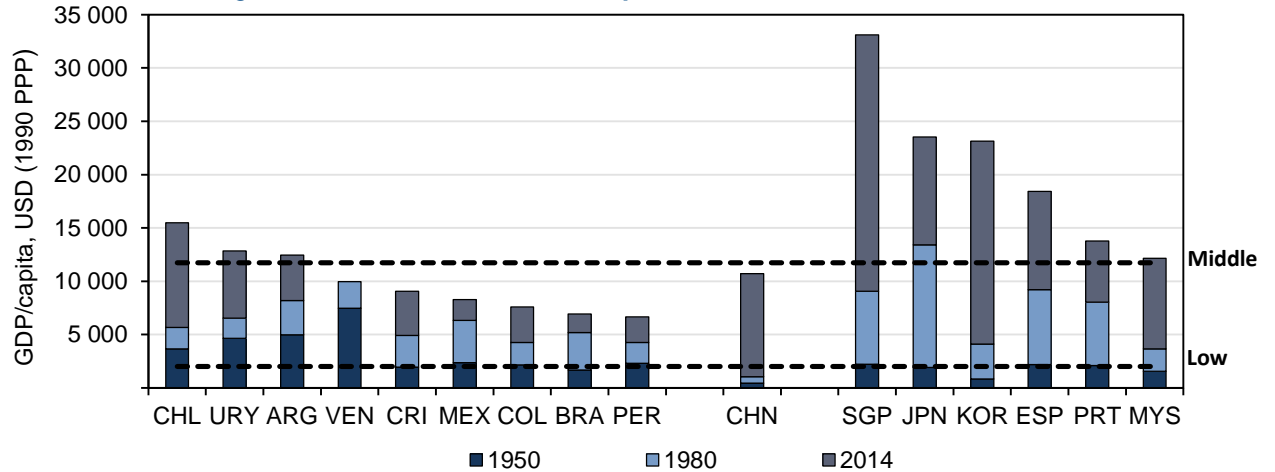
Furthermore, low growth figures, coupled with low productivity and widespread inequality, may be reasons to fear that some Latin American economies are entering the “middle-income trap” or will continue to remain constrained by it (see Box 1.1).

Box 1.1. The persistent middle-income trap in Latin America

As countries develop and accumulate increasing physical and human capital, productivity growth is essential to sustaining growth. The “middle-income trap” refers to a prolonged slowdown in GDP growth once an intermediate level of development has been reached. The middle-income trap is particularly persistent in Latin America and is fundamentally caused by the failure to transition from an economy based on industry to a knowledge- and innovation-based one. Investment in skills and innovation are hence key elements to promoting growth. As shown in Figure 1.4 below, unlike some Asian and European countries, Latin America has not made significant progress in closing the income gap with advanced economies. Only Chile, Uruguay and a few Caribbean countries are high-income countries in the Latin America region.

Sources: Solow (1956), “A Contribution to the Theory of Economic Growth”, <http://qje.oxfordjournals.org/content/70/1/65.abstract>; Jankowska, Nagengast and Perea (2012), “The Middle-Income Trap”, <http://dx.doi.org/10.1787/5k8x7qwqslp-en>.

Figure 1.4. The middle-income trap in Latin America vs. selected economies

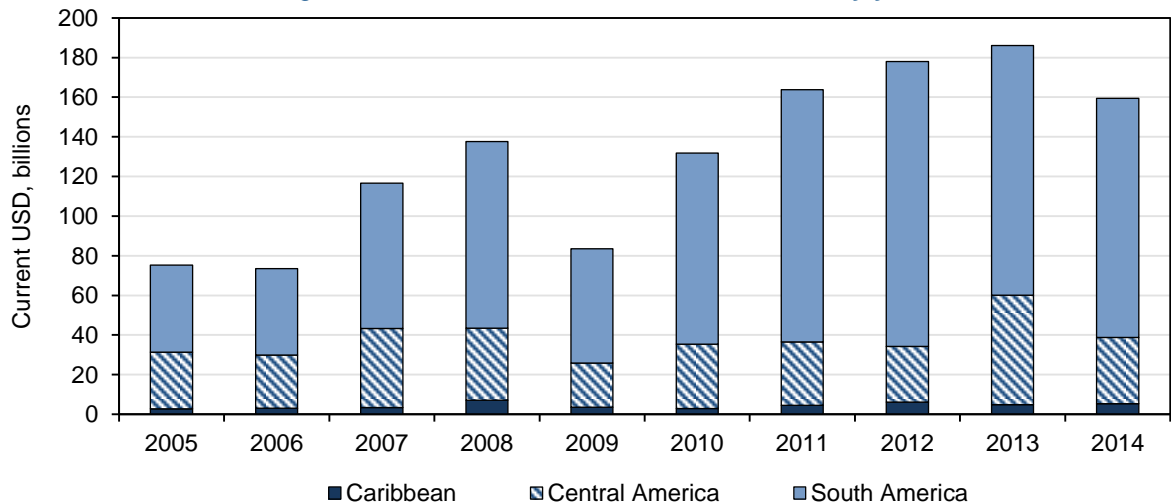


Note: GDP per capita at PPP in US dollars at constant 1990 prices.
 Source: OECD, CAF and ECLAC (2015), *Latin American Economic Outlook 2016*,
<http://dx.doi.org/10.1787/9789264246218-en>.

FDI trends

In 2014, total foreign direct investment (FDI) inflows to Latin America, amounting to approximately USD 160 billion, experienced a 16% slowdown compared to the previous year. FDI inflows were dominated by South America, followed by Central America and the Caribbean (Figure 1.5).

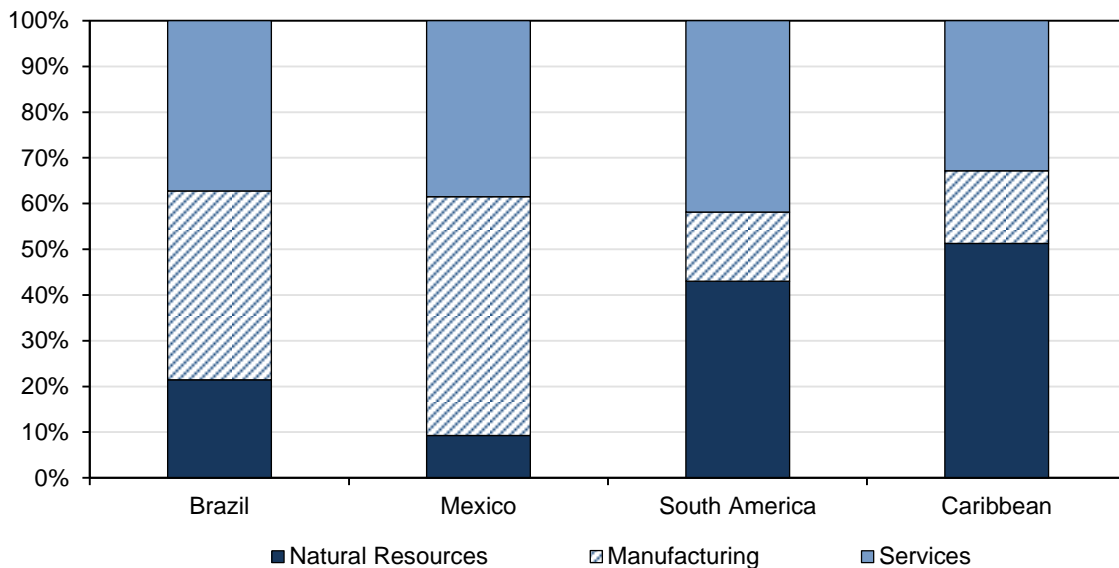
Figure 1.5. Total FDI inflows to Latin America by year, 2005-14



Note: USD at current prices and current exchange rates in billions, excluding the offshore financial centres in the Caribbean, namely Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, British Virgin Islands, Cayman Islands, Curaçao, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Saint Martin (Dutch part), and Turks and Caicos Islands.
 Source: UNCTAD (2015), UNCTADStat,
<http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=96740>.

In terms of its composition, FDI in South America is focused mostly on extractive and natural resource industries, i.e. mining in Chile, Colombia and Peru, and hydrocarbons in Bolivia, Ecuador and Venezuela (Figure 1.6). Similarly, the bulk of FDI in the Caribbean is concentrated on natural resources and extractive industries, i.e. oil and gas in Trinidad and Tobago, and mining in the Dominican Republic (ECLAC, 2015). Brazil and Mexico attract investment in manufacturing (automotive and electronics) and services. On average, services attract relatively more FDI inflows in the region, particularly telecommunications, financial services, energy distribution and retail.

Figure 1.6. Total FDI inflows to Latin America by sector, 2009-13



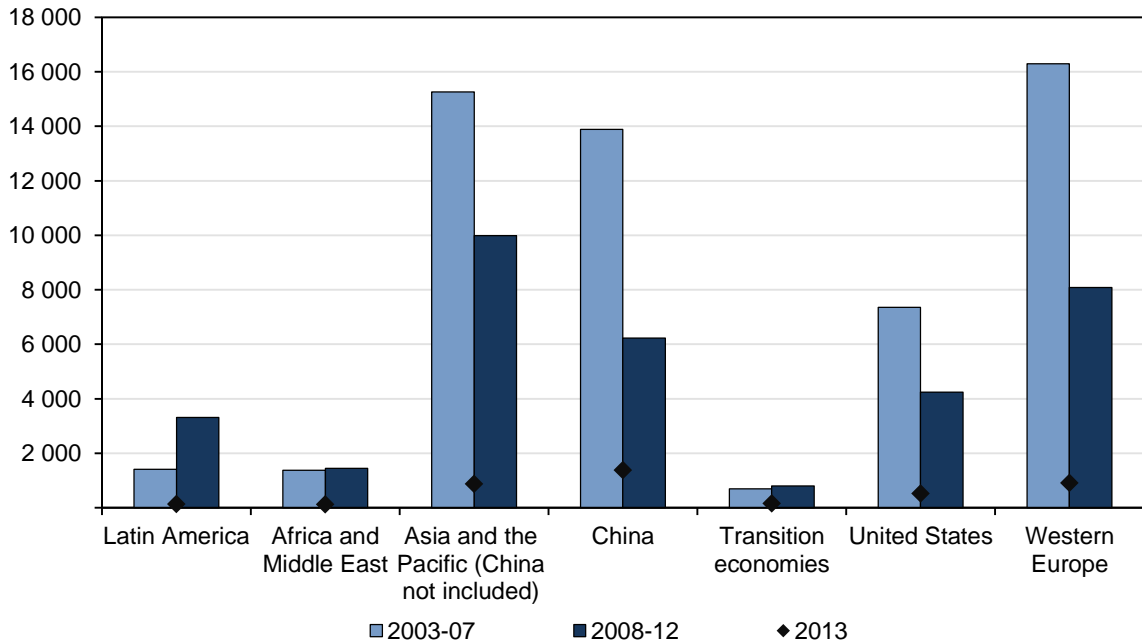
Note: South America comprises Argentina, Bolivia, Chile, Colombia, Ecuador and Uruguay. The Caribbean comprises the Dominican Republic and Trinidad and Tobago.

Source: OECD, CAF and ECLAC (2015), *Latin American Economic Outlook 2016*, <http://dx.doi.org/10.1787/9789264246218-en>.

FDI can also be a vehicle for innovation, providing new technologies and potentially generating spillovers. To achieve the greatest benefit, however, investment needs to take place in the most technology-intensive sectors and the beneficiary country needs an enabling environment that is well-connected with the rest of the local economy (OECD, CAF and ECLAC, 2015). As shown in Figure 1.6, manufacturing is a major area for investment in the region. Increased investment in the automotive industry since 2013, most prominently in Brazil and Mexico, has contributed particularly to technology-rich FDI inflows (OECD, CAF and ECLAC, 2014), but when manufacturing FDI goes into companies that are not linked with local firms or is only directed to low-value-added sectors, the chances of positive spillover effects are reduced significantly.

Finally, investment in research and development (R&D) can provide an indicator of a country's innovation landscape as well as highlight the relative role of technology in FDI. In absolute terms, Asia has performed far better than Latin America in attracting R&D FDI, benefiting from a steep rise, particularly from China, in R&D investment from multinational companies (Figure 1.7). The positive trend in Latin American R&D investment slowed in 2011, and it is unclear whether the past upward trend will return (OECD, CAF and ECLAC, 2014).

Figure 1.7. Announced R&D projects, by period and region



Source: OECD, CAF and ECLAC (2014), Latin American Economic Outlook 2015, <http://dx.doi.org/10.1787/leo-2015-en>, based on FDI Markets.com (2014), Crossborder Investment Monitor, www.fdimarkets.com/explore/ (accessed May 2014).

Although there is considerable variation across countries, Latin American R&D projects received only a tiny share – on average less than 2% – of regional greenfield investment in 2003-13. Regional exceptions included Ecuador (4.5%), Costa Rica (3.8%) and Colombia (2.9%). These encouraging figures stand in sharp contrast with Korea, however, which had an average of 8% of greenfield FDI go into R&D between 2009 and 2013 (OECD, CAF and ECLAC, 2014).

Latin America is even further behind in job creation through FDI in R&D. Over the 2003-13 period, less than 3% of jobs in greenfield projects were in R&D fields. Colombia and Ecuador again led the region for the same period with about 5.5% of greenfield jobs in R&D, which is only about half of Korean levels (10.5%) (OECD, CAF and ECLAC, 2014). There is considerable work to be done to use FDI to provide more technology and skills in Latin America. Attracting FDI with a stronger R&D component will be essential to promote spillover effects on production processes and technology in destination countries.

EDUCATION, SKILLS AND INNOVATION FOR INCLUSIVE GROWTH

The development of human capital through skills and innovation is crucial for Latin America. Fostering innovation and improving education will be necessary to increase productivity and overcome the middle-income trap, strengthen the middle class and promote sustainable long-term growth (OECD, CAF and ECLAC, 2014).

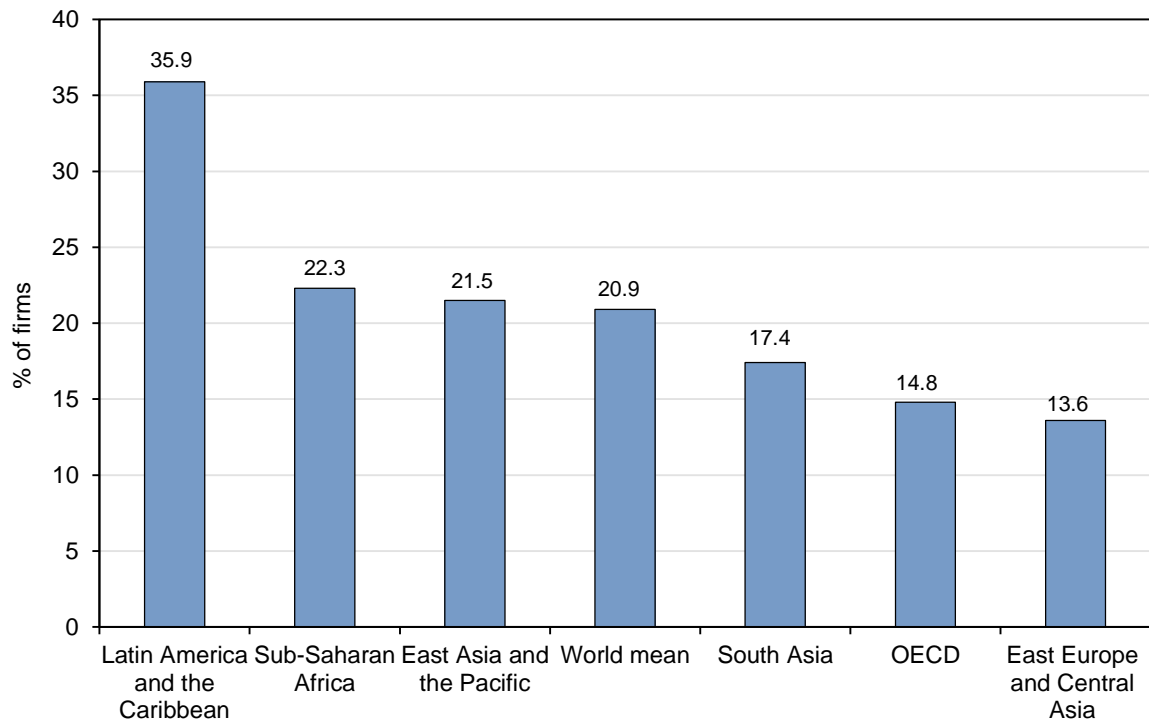
Educational challenges and developing skills

In Latin America there is a gap between the demand for skilled workers and the specific skills being taught by local educational institutions. Unequal access to education and a mismatch in skills requirements are key contributors to the educational gap in Latin America.

Latin America has increased investment in education but continues to face several challenges to improve its quality and effectiveness to close educational gaps. Access to primary education is practically universal and covers 91% of the population, compared to the 97% coverage rate in the OECD member countries as a whole (OECD, CAF and ECLAC, 2014). Access to pre-primary education, which plays a key role in a child's development, remains low, and dropout and repetition rates are still too high. The biggest challenge regarding access to education relates to socioeconomic, gender and urban-rural inequalities (OECD, CAF and ECLAC, 2014).

There is a mismatch between the skills required by the private sector and those possessed by workers. According to World Bank Enterprise Surveys (Figure 1.8), 36% of companies in the formal sector in Latin America struggled to find properly trained workers, compared to a global average of 21% and an OECD average of 15%. In addition, Latin American firms were three times more likely than South Asian firms and 13 times more likely than Pacific-Asian firms to face operational problems due to a lack of human capital (OECD, CAF and ECLAC, 2014). The automotive and machinery subsectors were affected most by these skills gaps. Entry-level vacancies can be particularly challenging to fill. A recent survey by McKinsey (Mourshed, Farrell and Barton, 2015) found that 48% of Brazilian employers and 40% of Mexican companies see lack of skills as the leading reason for vacancies.

Figure 1.8. Percentage of firms identifying an inadequately educated workforce as a major constraint



Note: Data are taken from the last available survey for each country. The countries included in the sample, by region, are:

- Sub-Saharan Africa: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Côte d'Ivoire, Cabo Verde, Chad, Congo, Democratic Republic of Congo, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Lesotho, Madagascar, Mali, Mauritania, Mauritius, Malawi, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Swaziland, Tanzania, Togo, Uganda, Zambia and Zimbabwe;
- Latin America and the Caribbean: Argentina, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Suriname, Trinidad and Tobago, Uruguay and Venezuela;
- East Asia and Pacific: Cambodia, China, Fiji, Indonesia, Laos, Malaysia, Micronesia, Myanmar, Mongolia, Philippines, Samoa, Thailand, Timor-Leste, Tonga, Vanuatu and Viet Nam;
- South Asia: Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka;
- East Europe and Central Asia: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Georgia, Hungary, Kazakhstan, Kosovo, Kyrgyzstan, Macedonia, Moldova, Montenegro, Romania, Serbia, Tajikistan, Turkey, Ukraine and Uzbekistan;
- OECD: Chile, Estonia, Germany, Greece, Ireland, Israel, Korea, Poland, Portugal, Slovak Republic, Slovenia and Spain.

Source: World Bank Enterprise Surveys (2012), World Bank, Washington DC, cited in OECD, CAF and ECLAC (2014), *Latin American Economic Outlook 2015*, <http://dx.doi.org/10.1787/leo-2015-en>.

Despite the unmet demand for skills, returns on education through wage premiums have fallen in Latin America since 2010 (OECD, CAF and ECLAC, 2014). The wage premium refers to the additional wages earned by workers with higher education versus the wages of those with less education. This decline could be explained by a wide variety of factors. For example, rapid increases in educational access could have diluted the quality of education. Outdated teaching methods and curricula, or the simple fact that the education system does not offer the skills most demanded by the labour market could also be playing a role. Additional formal employment and

stronger labour institutions supporting more stringently enforced minimum wages and effective collective bargaining are other potential contributing factors. OECD, CAF and ECLAC (2014) offers a more detailed literature review of recent wage-premium dynamics in Latin America.

The current state of innovation

To improve productivity, improvements in education also need to be supported by greater innovation. A range of indicators exist to measure innovation, such as patents for technology performance, R&D spending for technology inputs and innovation capital.

OECD studies on innovation across Latin America show that R&D spending has been considerably lower than that of OECD countries (e.g. Colombia, 2014; Peru, 2011; Mexico, 2009; and Chile, 2007). Moreover, as observed in other emerging markets, Latin American R&D is mainly driven by state funding. Transitioning to a knowledge-intensive economy and avoiding the middle-income trap will require Latin American countries to develop industrial and production development policies that will attract more high-tech FDI and put the newly educated labour force to work.

In 2013, patent registrations were also low in Latin America compared to OECD countries, and few countries in the region registered a significant number of patents with the United States Patent and Trademark Office. The same year, 132 patents per million inhabitants were registered on average in OECD member countries, versus 0.9 in Latin American countries (OECD, CAF and ECLAC, 2014).

Traditional ways of measuring innovation such as FDI and numbers of registered patents may not fully capture innovation efforts in developing countries. By using multiple proxies such as information and communications technology (ICT) infrastructure, R&D spending, patents, tertiary education and employee development, a broader indicator of “innovation capital” can be developed that measures the capacity to innovate and disseminate innovation (OECD, CAF and ECLAC, 2014). Based on a 2014 OECD analysis of innovation-capital proxies, the stock of innovation capital in Latin America is estimated to represent 13% of the economy on average, less than half of the stock in OECD countries (30%) (OECD, CAF and ECLAC, 2014). It is notable that tertiary education makes up most of the innovation-based capital stock in Latin America while R&D plays a relatively minor role. OECD countries, in contrast, invest significantly in R&D to drive innovation. Bolstering ties between higher-education institutions and the private sector in the science and technology fields is essential to improving the guidance and promotion of R&D activities. In addition, science and technology institutions need better governance for an efficient and comprehensive institutional framework to be developed to disseminate technology and innovation (OECD, CAF and ECLAC, 2014).

GOVERNMENT EFFORTS TO INCREASE PRODUCTIVITY

Governments have an important role to play in supporting productivity improvements. Implementing the right policies can boost productivity and set the economy on a path to development (OECD, 2014).

Government policies on education and skills

By promoting improved education and skills, governments can help to reduce inequality and support productivity improvements. Special attention can be given to the cases of Brazil and Mexico, the two largest economies of Latin America making strong progress in education. In 2012, Brazil and Mexico both allocated more than 17% of public expenditure to education, well above the OECD average of about 12% (OECD, 2015c). Brazil actively is implementing successful policies to improve the country's educational system. For example, Brazil's Bolsa Escola school-allowance programme and the national partnership to strengthen secondary education (Pacto Nacional pelo Fortalecimento do Ensino Médio) have reduced regional inequalities in access to education and in its performance (OECD, 2016b). The "University for All" programme, ProUni, promotes enrolment in tertiary education for low-income students and has been billed a success, awarding over 1.8 million scholarships between 2005 and 2013 (WEF, 2014b). In addition, the federal "Science Without Borders" programme supports international mobility for undergraduates, graduate students and researchers (WEF, 2014a).

Mexico has also implemented policies aimed at reducing inequality in access to education. In 2002, it made preschool education compulsory. The Oportunidades programme, which began in 2002, provides families with cash transfers conditioned on fulfilling certain aspects of education and health behaviour, such as regular school attendance and health-clinic visits. In 2014, the Mexican government announced that Oportunidades would be replaced by a new programme, "Prospera". Prospera complements cash transfers from Oportunidades by providing additional support to beneficiaries. For example, children can now receive scholarships for universities or technical schools, jobseekers will have priority in the National Employment Service and the programme will support access to financial education, savings, insurance and credit for beneficiaries (OECD, 2015b).

Skills policies also need to focus on strengthening the linkages between education and the labour market through technical training and apprenticeship. Vocational education and training (VET) systems are particularly important for responding to market needs and promoting work-based learning. A significant obstacle for Latin American VET systems is a lack of training amongst the teaching staff at institutions in charge of delivering the VET competency-based curriculum (IVETA, 2015). As a response, Brazil has adopted the Profuncionario training programme for education staff, and Peru has introduced an incentive mechanism to recognise teachers' performance (OECD, 2016b).

Apprenticeship can also give workers a better start in their careers. Available evidence highlights the positive experience of some Latin American countries in this domain, notably in Argentina and Mexico, where apprenticeship completion rates reach about 80% (OECD, 2016b). Involving employers is a crucial element for the success of apprenticeship programmes. In Brazil, the Aprendiz Legal apprenticeship programme is based on a legal requirement for firms to hire apprentices and has been successful in expanding the number of apprenticeships (OECD, 2016b). In Latin America, work schemes and training programmes can complement apprenticeship. The BECATE programme in Mexico and the Joven programmes in Chile,

Argentina and Colombia combine education, job training and internships. These programmes have been shown overall to have a positive impact on labour-market formality (OECD, 2016b).

Promoting effective innovation policies

Innovation will also play an important role in increasing the productivity gap in the region. In the 2000s, Latin American countries undertook major reforms and worked to build institutions to coordinate, manage and promote science, technology and innovation (OECD, CAF and ECLAC, 2014). For example, Latin American countries took steps to formalise and increase the political weight of research, science and technology institutions; Argentina, Brazil and Costa Rica established ministries of science, technology and innovation; and Uruguay created a ministerial cabinet for innovation (Gabinete Ministerial de Innovación) and a national agency for research and innovation (Agencia Nacional de Investigación e Innovación) (Rivas and Rovira, 2014).

Brazil is recognised as a leader in the region for its integrated public-innovation policy with a variety of channels that interact with each other. For example, Brazil set up a special agency for strategic studies and management (Centro de Gestão e Estudos Estratégicos) combined with the development of national science and technology plans and periodic information-gathering efforts on innovation activities (Rivas and Rovira, 2014). Linking together these three areas highlights efforts to promote greater coherence across policies. Brazil has also established sector-specific funds that are recognised as a key instrument to support innovation at the national level (Rivas and Rovira, 2014).

Chile has made efforts to support innovation at the subnational level. Set up in 2001, Innova Bio was the first regional fund for technological innovation in Chile and highlights a decentralised approach to support innovation. Chile is also developing strategic programmes (Programas Estratégicos) that foster public-private co-ordination in sectors with high growth potential such as aquaculture, logistics and tourism, and could help to foster the emergence of clusters (OECD, 2015a).

PRIVATE SECTOR INSIGHTS ON PRODUCTIVITY CHALLENGES

Improving productivity in Latin America will require aligning skills with market demand, leveraging FDI to support innovation and expanding infrastructure investments. This section includes insights drawn from the EMnet Latin American meeting in June 2015.

Participants expressed the need for Latin American governments to focus on developing knowledge-based societies capable of transitioning to a high-income status and avoiding the middle-income trap. Participants stressed the importance, in the short run, of rebuilding monetary and fiscal response capacities in Latin America to counter the challenging economic context and stabilise the overall macroeconomic environment. In the long term, however, Latin America needs to move forward in implementing structural reforms to boost potential growth and equality.

Aligning education and skills with market demands

Governments should align education priorities with market demand for skills. English and other foreign-language skills are particularly valued by companies. Latin American countries should also implement vocational programmes that equip those who decide not to pursue tertiary education with the right skills. In some cases, companies are developing their own internal training programmes and academies to fill skills gaps. Companies noted that when they try to certify these

training programmes with local and national governments they often have faced long bureaucratic procedures that delay the recognition of the skills acquired by workers.

The case of Costa Rica shows that it is possible to narrow the skills gap, with the private sector contributing to strengthen skills, improve education opportunities and achieve one of the highest literacy rates in the region. Private companies in Costa Rica partnered with national universities and the National Institute for Learning (Instituto Nacional de Aprendizaje) to improve their curricula, favour onsite learning, and provide cutting-edge targeted training in semiconductor manufacturing and microelectronics (OECD, 2012). Box 1.2 provides additional examples of successful public-private partnerships for education.

Box 1.2. Public-private partnerships for education and skills in Latin America

Programa Universidade para Todos (ProUni), or “University for All”, is a programme initiated by the Brazilian government to promote access to private tertiary education for low-income students. The programme awards scholarships ranging from 25% to 100% of the tuition costs for eligible students. The goal is to increase the share of students enrolled in tertiary education from under 15% to 33% by 2020, in line with the national education plan (PNE). In Brazil, nine out of 10 universities in the country are private where, however, 37.5% of the places are not filled, compared to 5% at public schools. The government decided to partner with private universities to capitalise on their excess capacity, and in exchange for their participation, universities receive tax exemptions. The programme has been billed a success, awarding more than 1.8 million scholarships from 2005 to 2013, 57% of which were full scholarships.

Empresarios por la Educación (ExE), or “Business for Education”, is a programme started by the Colombian Ministry of Education to involve the domestic private sector in shaping and improving the educational system. Although Colombia has achieved a high enrolment rate for primary school, important deficiencies in the quality of the education persist. By involving the business community, the ministry hopes to improve educational quality. Some of the actions taken by the private sector include developing training for educators in better school-management practices and assisting with programme monitoring and evaluation. Programme funding comes both from private-sector companies, foundations and other national or international co-operation partnerships.

Source: WEF (2014b), *Creating New Models*,
www3.weforum.org/docs/GAC/2014/WEF_GAC_LatinAmerica_InnovativePublicPrivatePartnerships_Report_2014.pdf.

Companies are employing different hiring strategies to respond to skills gaps. Businesses that set up a new subsidiary abroad have the options of sending staff as expatriates from their headquarters or hiring qualified workers locally. Alternatively, others prefer to purchase a local existing company and retain the local staff to leverage their market knowledge and experience. International firms, however, have highlighted the difficulties they can face in integrating different corporate working cultures within a single company.

Leveraging FDI to support innovation and improve productivity

Additional investment in information technologies and telecommunications will be needed particularly to increase productivity and support innovation (OECD, 2016b). By encouraging needed FDI, countries can promote economic development, improve business practices and generate jobs. FDI investment in enabling infrastructure such as high-speed broadband coverage can play a powerful role in stimulating future innovation. Countries should put greater emphasis

on attracting FDI with R&D components to promote production-process and technology spillovers in destination countries.

Participating companies stressed the important role of proactive investment promotion and facilitation policies that go beyond simply providing tax incentives. While tax rates are an important consideration, low tax rates are not necessarily more attractive for companies. For example, effective government communication regarding fiscal expenditures can increase investor confidence. Taxes in Chile, for instance, are perceived to be high but fair, as the government effectively communicates public investment achievements. Peru, in contrast, has lower tax rates, but investors have a much more cautious outlook regarding the country's fiscal capacities and ability to communicate progress.

Expanding infrastructure investments

If Latin America were to close its infrastructure gap with other middle-income countries, the region could increase its annual growth by an estimated 2 percentage points (Calderón and Servén, 2010). Given that fiscal and monetary policy tools are almost exhausted, infrastructure investments are needed critically to increase business and workforce productivity. Despite the infrastructure needs, Latin America is experiencing an “infrastructure paradox,” namely that many investments are required yet investment opportunities with attractive risk-adjusted returns for private investors are limited. Developing institutional capacity and regional co-ordination to support investment in infrastructure development is necessary to unlock capital flows into infrastructure projects. To improve project sustainability, participants also underscored the importance of local “buy in” and consensus regarding the value of infrastructure projects.

Infrastructure finance can also be further modernised through greater use of debt capital markets. Project bonds, i.e. bonds directly linked to specific infrastructure projects, are another tool available to Latin American governments to finance infrastructure. Companies are eager to see greater use of project bonds in the region.

THE WAY FORWARD FROM A BUSINESS PERSPECTIVE

The economic slowdown of Latin America should be a wakeup call for Latin American policy makers to address education and innovation gaps. Participants highlighted the advantages and drawbacks of several Latin American economies. Colombia was universally perceived as one of the most business-friendly countries in Latin America. Proactive investment promotion and facilitation policies are important and should be designed to support innovation policies. Colombia and Peru are perceived to be lagging behind Chile in logistics and infrastructure capacity. In Brazil, investors face major legal and regulatory challenges in establishing production facilities.

To address skills mismatch, greater public-private co-operation is needed. For example, facilitating certification of private training schemes could encourage greater private-sector provision of training to fill critical skills gaps. Supportive policies for FDI in R&D are needed to promote innovation spillovers. Latin America remains constrained by infrastructure deficiencies, and greater regional co-ordination and institutional capacity are needed to unlock needed infrastructure investment.

Notes

1. The average growth rate of Latin America in 2005-15 is from *CEPALSTAT* (CEPAL, 2016). Latin America 2016 growth forecasts are sourced from the February 2016 Consensus Forecasts (Consensus Economics, 2016). OECD growth rates and projections are drawn from the OECD Interim Economic Outlook (OECD, 2016a).
2. Latin America growth forecasts for 2016 are sourced from the February 2016 Consensus Forecasts (Consensus Economics, 2016). For Brazil, the 2016 -3.1% growth forecast is drawn from the February 2016 Consensus Forecasts and the -4.0% growth forecast is from the OECD Interim Economic Outlook (OECD, 2016a).

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