



BOOSTING PRODUCTIVITY IN LATINAMERICA

International Conference and Ministerial Meeting

SUMMARY RECORD



The International Conference on "Boosting Productivity and Inclusive Growth in Latin America" was hosted by Chile and co-organised by the OECD Global Forum on Productivity and the Inter-American Development Bank, as the first high-level event of the OECD Latin America and the Caribbean Regional Programme. It was attended by more than 300 participants, including Ministers from Argentina, Chile, Costa Rica, Ecuador, Paraguay, Peru and the Dominican Republic and representatives from IDB, CAF, ECLAC and the World Bank. It included a conversation with Professor Dani Rodrik. There was a good spirit of co-operation between participants, which allowed for an active discussion about policies to increase productivity, supported by the report "Boosting Productivity and Inclusive Growth in Latin America" prepared jointly by the OECD and IDB.

Key conclusions were: (1) reforms pay off — as shown by Chile's productivity agenda and Mexico's Pacto por México where, after some years in the negative side, both countries post now positive productivity growth; (2) Institutions such as Productivity Commissions of Mexico and Chile play a useful in bringing policy coherence; and (3) sequencing and the right policy mix are important to maximise the impact on growth and mitigate social impact. Reforms that make a difference (in terms of productivity and inclusion) include reducing barriers to entrepreneurship and competition; reducing barriers to trade and GVC integration; improving skills; reducing bureaucracy, corruption and simplifying procedures; tackling informality; and addressing the territorial dimension of productivity in cities and rural areas. Participants felt that LAC countries have the opportunity to reap the benefits of boosting productivity if they properly address the challenges of measurement, policy design, peer learning and communication, on all of which the OECD and the IDB can provide relevant support.

Welcoming remarks

President Michelle Bachelet said that LAC countries have a very large economic potential that could be realised if they worked together to cooperate and achieve greater integration. For this to happen, countries need to go away from the strong specialisation in commodities and transform themselves into more productive economies. This should be done in an inclusive way because it is important to ensure that development is shared with all. Globalisation and trade are important, but paying attention to inclusion is just as important, notably when it comes to tax reform, education reform, technical education and vocational education. Chile has adopted a policy agenda for productivity, innovation and growth; and it has named 2016 the year of productivity, so as to strongly emphasise the importance of this objective.

MONDAY 5 DECEMBER 2016 – MINISTERIAL MEETING

Ministerial discussion: Argentina, Chile and Peru, moderated by A. Pereira (OECD) and J.J. Ruiz (IDB)

Argentina's Minister of Production Cabrera said that Argentina was a very closed and planned economy, but is now in the process of opening and normalising. The first steps have aimed to reduce macroeconomic imbalances, and more steps are now being taken to re-integrate with the world economy, notably to restore flows of investment and trade, which are key to economic growth. Argentina's national Productive Plan focuses on the cost of capital, labour, energy, access of technology, and competition. Not all enterprises have weak productivity. For instance, Argentina masters the application of technology to agriculture. It also has a very high rate of entrepreneurship, which has been facilitated by administrative simplification now allowing the creation of businesses in 24 hours, and by lower taxes. As a result, out of 6 unicorns in LAC countries, 4 are from Argentina. The government has created the Agency for Talent to strengthen training for all in a context of changing labour environment.

Peru's Minister of Production Bruno Giuffra said that economic growth is essential to reduce poverty. For this purpose, in addition to sound macroeconomic policies, Peru has introduced key institutional reforms such as liberalisation of finance and trade, and open doors to investment. However, it is also necessary to get rid of bureaucratic regulations and the excessive layers of rules and norms. Boosting productivity further would require enacting reforms: in particular, bureaucracy and overregulation remain key problems; administrative simplification should reduce the time devoted by the private sector to administrative tasks and increase the time devoted to productivity activity. To develop entrepreneurship, Peru has created Centres of Entrepreneurial Developments in all regions. Peru also seeks to promote the digitalisation of firms. For instance, SMEs should be ready to have electronic payments, invoicing and inventories; this has many benefits, including an incentive to bring them to the formal market.

Chile's Minister Luis Felipe Céspedes said that Chile adopted a productivity agenda in 2014 and named 2016 the year of productivity. He stressed the importance, for productivity, of macroeconomic stability, which has improved, but also of economic integration through intra-LAC flows of trade and investment, which have improved less. The Minister stressed several dimensions that are important for productivity:

- Support to SMEs, which includes administrative simplification through the use of technology, and reduced time devoted to bureaucratic formalities.
- Competition, which is critical for innovation. In some markets, there is no competition. Chile needs to adopt clear rules and broad consensus for this purpose, and use competition to put pressure on incumbent enterprises.
- Reducing the high dispersion of productivity, which requires more business dynamisms market entry and exit so as to make it easier for experimentation and, if successful, scale up.

The Minister explained that Chile has adopted a policy of clusters, which is based on the logic of selecting sectors that have a key comparative advantage, such as mining, tourism, healthy foods, and solar energy. This approach is about intelligent specialisation, where there is potential to develop these sectors in collaboration with private, public and academic stakeholders. Future development will come from the sector of SMEs, which should be made more productive with adequate public interventions. For instance, digitalization helps to simplify administrative procedures, and it also increases accountability: many administrative steps required to do business can now be done on a single <u>digital platform</u>. Management training can be useful to increase productivity of SMEs. He said that Chile's centres of business development are very important, especially in fostering innovation and entrepreneurship. Thanks to these centres, talents have access to mentor networks and to the ecosystem of entrepreneurship and innovation. Finally, Chile has promoted competition in product markets to stimulate firm dynamism; penalties are imposed in case of anti-competitive behaviour and collusion.

A conversation with Professor Dani Rodrik - Moderator: Andrea Repetto (Economist, Chile)

Professor Rodrik expressed his optimism about Latin America's prospects, although the region's potential growth is likely to be less high than in past decades -- 3-4% rather than 5-6% -- as is happening in other parts of the world. Achieving strong growth requires that countries seek to diversify their activity, rather than specialise. He said that Korea, China and other South-East Asian countries have not focused only on their initial comparative advantage, but they have also diversified by addressing comparative advantage in a dynamic context. Some of these countries delayed their trade openness while they diversified their economies. Indeed, there was an argument for opening slowly the tradable sector. However, this question is becoming less relevant: the opportunities for developing a domestic manufacturing industry and creating many good jobs in this sector are declining, reflecting the growth of automation. Governments should therefore look for other sources of job creation. The sector of services is the key alternative, but most services are not traded externally, and therefore require a strong domestic demand. A more balanced growth model is needed, which puts emphasis on domestic demand, job creation, and services. SMEs have a key role to play in this strategy. The vast majority of these firms are below the productivity frontier and not very productive, but they create many jobs and there is no reason why they cannot grow even further and create more employment. Much of this has to do with social policy rather than productivity.

Professor Rodrik added that the government has a role to play in economic development. He did not advocate industrial policy or import substitution, where there is great risk of government agencies being captured due to asymmetric information and rent-seeking behaviour. He recommended offering a platform for the dialogue with the private sector to exchange views about impediments to business sector development and opportunities that can be caught. He said that governments should be pragmatic in their interventions: they should not pick winners, but they should let losers exit quickly, they should provide subsidies when there is a strong case for it, but be transparent in their decisions and evaluate what goes well and what goes badly. Such policy has played a role in developing key industries in Chile such as salmon, wine, forestry, etc. They should be well integrated with other policies such as education and skills development. Government should intervene only when they are aware of the risks and then do it transparently.

Turning to the high level of income inequality in Latin America, Professor Rodrik said that inequality reduction will require the creation of middle-class well-paid jobs, which in turn will require higher productivity. The creation of such jobs is important to avoid populist backlash resulting from rapid deindustrialisation and losses of blue-collar jobs. The creation of good middle-class jobs does not require outward-looking strategies; instead, government intervention should focus on SMEs, especially in services, where the sources of development can be more local. He warned, however, against the illusion of easy successes: the vast majority of SMEs fail to grow, so it is not worth implementing policies that encourage them to scale up across the board – it is better to facilitate the reallocation of workers to larger and more productive firms. It is not sensible to keep old and weakly productive SMEs alive, but still policies should help successful SMEs to grow.

Presentation of Chile's Productivity Commission by its President, Joseph Ramos

Mr. Ramos said that productivity has been a critical part of Chile's growth during the past 30 years. However, since the 2000s, productivity growth has slowed considerably and the gap with advanced countries has increased. This is explained in part by productivity in the mining sector, which cannot increase further. In the future, productivity growth will not come from the sector of natural resources. The public sector has to promote productivity in activities such as agriculture, credit cards, and activities related to wineries. Chile's Productivity Commission is intended to be permanent. It is led by permanent counsellors and makes evidence-based recommendations. When the government does not want to comply with a recommendation, it must provide a public explanation, based on the Australia experience. In addition, new legislation requires that each government regulation or legislative change must include estimations on the impact on productivity.

Remarks by Rodrigo Valdés (Minister of Finance, Chile)

In his remarks, **Minister Valdés** noted that the challenge of slow productivity is global and that all countries must address it. In Chile, several legislative changes have been introduced to this extent: a new competition framework in the sector of electricity, new approach to supervision of financial markets, and new regulation for electronic payments. Chile has adopted a Productivity Agenda, with 47 measures, of which 39 have been implemented. Chile is also focusing on the promotion of exports of services. As recommended by the Productivity Commission, all new laws will include an assessment of the impact on productivity. As a small open economy, Chile is concerned about the rise of protectionism, which is not the right solution to existing problems. Intra-regional trade integration is very important; this requires steps to avoid double taxation, as well as adoption of a common approach to energy. Making progress towards inclusiveness and productivity will be important to reduce inequality and stem the rise of populism.

Presentation of the OECD-IDB joint publication

José Juan Ruiz (Chief Economist, IDB) reminded the audience that Latin America is richer than ever, but nonetheless has failed to converge in terms of GDP per capita. The region is farther away from North America's living standards than one generation ago, with the income gap having widened since 1960. This disappointing outcome is largely explained by the weakness of multi-factor productivity. The IDB has built a quantitative framework to identify the structural reform priorities that should be prioritized to jump to a higher cluster of development. A few countries were able to jump to higher clusters in the past, although none has made to the highest level. The methodology uses 34 indicators in 8 sectors, which all affect productivity. It helps identify structural impediments to productivity growth (e.g. lack of infrastructure in Colombia). This framework is well suited to the diversity of the LAC region, which includes countries with various levels of development and different challenges.

Alvaro Pereira (Director of OECD Economics Department Country Studies) noted that the LAC region benefitted in the past from supportive external conditions, which no longer exist. Hence, new, internal sources of growth are necessary. Productivity growth is necessary in the long term to achieve greater convergence. OECD work shows that productivity is advancing rapidly at the frontier, but there is a need to facilitate diffusion of knowledge from the frontier, which will help to boost income and reduce inequality. However, several factors restrict productivity in LAC countries, which are discussed in the new OECD-IDB publication: the prevalence of informality; low participation in global value chains; low investment in innovation and digitalization; inefficient functioning of markets and inefficient allocation of labour; low levels of competition; low levels of human capital development and prevailing skills mismatches. Structural reforms can increase productivity growth and, where they are implemented, they work. Reforms should seek to lower barriers to entrepreneurship, simplify administrative procedures, improve skills, fight corruption, and promote transparency. They should seek to reduce dependency on primary materials and promote greater regional integration.

Panel 1: How to stimulate productivity growth? The role of public policies

Chair: Alfonso Prat-Gay, Minister of Finance and Public Finance, Government of Argentina.

Panelists: Christian Kastrop (Director, OECD), Mario Cimoli and Gabriel Porcile (CEPAL), Alejandro Izquierdo (Senior Advisor, Research Department, IDB).

Members of the panel were all concerned about the slow pace of productivity growth and rising productivity gaps with respect to the US, Europe and the difference in the trend with Asia. They agreed that a combination of factors constrains productivity growth, including misallocation of resources and shortages of skills. LAC countries are implementing or considering policies to boost productivity: besides maintaining macroeconomic stability these policies include administrative simplification, ease of doing business, improving access to quality

education, focusing on skills that are relevant for the business sector, investing in infrastructure and transportation facilities, easing access to credit, and encouraging investment in R&D.

The importance of these structural policies for the growth of per capita income was highlighted by research conducted at the IDB, as presented by **Alejandro Izquierdo**. The research shows that the probability to "jump" from one development cluster to the next depends on relevant structural reforms, which differ across countries. For instance, Bolivia and Peru closed the gaps in their respective policies (education, health, capital markets) thus improving their probability of jumping to the next cluster. It is quite difficult to make this jump. Investment in infrastructure is the most relevant priority for cluster 3 together with budget transparency and anti-corruption efforts.

The OECD Global Forum on Productivity (GFP) is a platform for dialogue on productivity-enhancing policies and institutions, which also conducts specific research, as presented by **Christian Kastrop** (Director, OECD Economics Department, Policy Studies Branch). Work by the OECD has looked into the slowdown of productivity; firm-level data reveal sharp divergences between groups of firms, with "the frontier" benefitting from further fast growth of productivity, while "laggard" firms have seen their productivity stagnate. This suggests a breakdown of knowledge diffusion. Research also shows the importance of misallocation of resources, including large mismatches between the supply and demand of skills. Misallocation of resources is explained by barriers to entry and exit. The GFP and other OECD working groups have a programme of research to investigate relevant issues: monetary policy, credit allocation and productivity; productivity and global value chains; zombie firms, exit policies and productivity; productivity dispersion and wage inequality; and productivity in the non-market sector.

Panel 2: Institutions to Improve Productivity

Chair: Alexander Mora, Minister of Foreign Trade, Government of Costa Rica.

Panelists: Luiz de Mello (Deputy Director of the Public Governance and Territorial Development Directorate, OECD), Lucio Castro (Secretary of Productive Transformation, Argentina), Juan Rebolledo (Director General of Economic Productivity in the Ministry of Finance and Public Credit, Mexico).

Participants exchanged views about the appropriate design of institutions to promote productivity, such as Productivity Commissions. They recognised the importance of inter-ministerial coherence, which such institutions can foster. There was agreement that public policies need to focus on getting incentives right, improving capabilities and flexibility. Such institutions also need to take into account the possible social costs stemming from resource reallocation. There is a rich experience with Productivity Commissions in several OECD countries. This shows the importance of: transparency; independence; solid research capacity; a broad view on the economy; and influence in decision-making. During the discussion, participants asked about the authority of such institutions in enforcing government policy interventions: should only incentives be used? How about sanctions? Participants also asked about the relationships between Productivity Commissions, competition authorities and sector regulators.

TUESDAY 6 DECEMBER 2016 – MINISTERIAL MEETING

Panel 1A - Productivity and business dynamics: information with firm-level data and policy lessons

Chair:	Juan Temistocles Montás, Minister of Industry and Commerce, Dominican Republic.
Introduction:	Giuseppe Nicoletti, Head of Structural Policy Analysis Division, Department of Economics,
	OECD.
Panelist 1:	Guido Sandleris, University of Torcuato di Tella, Buenos Aires.
Panelist 2:	Aldo González Tissinetti, Academic University of Chile.
Panelist 3:	Álvaro García Marín, Academic University of Chile.

G. Sandleris presented evidence on the increase in productivity dispersion, especially post-crisis, using the example of the 2001 financial crisis in Argentina. Such an increase is a symptom of deteriorating efficiency of resource allocation in the economy. However, not much is known about the effect of policies on the extent and efficiency of reallocation. Hence, policy makers need to know more about the impact of different policies to be able to prioritize them in a policy agenda.

A. González Tissinetti presented evidence on the link between competition and productivity on Chilean firm-level data (manufacturing and services). In this work, competition is measured via the Boone index (uses information on profits and variable costs). Competition is estimated to boost the speed of catch up of productivity laggards to leaders.

A. García Marín presented his work on the link between mark-ups and multi-factor productivity (MFP), using Chilean data on firms in the manufacturing sector. Mark-ups are estimated to be positively related to MFP, even controlling for a number of factors and addressing endogeneity issues. However, average effects are driven by (discouraging) effects on laggards, and mark-ups are damaging for MFP of frontier firms whose incentives to escape competition by innovating are stronger.

The ensuing discussion pointed to conflicting evidence on the role of competition for MFP: competition is assessed as having a positive effect on improving efficiency of allocation and MFP of frontier firms, but too much competition can be potentially damaging for laggard firms (in manufacturing) -- consistent with neo-Schumpeterian theories. The audience also pointed to difficult political economy issues from reforms to improve the efficiency of allocation processes. Also discussed was the link between competition and productivity in different sectors, such as manufacturing and services. Finally, access to finance was seen as an important issue to be examined in conjunction with product market reforms.

Panel 1B – Productivity and Inclusion

Chair:	Santiago León, Minister of Industries and Productivity, Government of Ecuador.
Introduction:	Ángel Melguizo, Head of the Latin America Unit, OECD Development Centre.
Panelist 1:	Arturo Antón, CIDE, México.
Panelist 2:	Patrick Lenain, Assistant Director, OECD, – Presentation of "Doing well by doing good".
Panelist 3:	Sergio Urzúa, Academic University of Maryland.

Panel speakers thought that slow productivity growth is making it more difficult for LAC countries to reduce inequality and, in turn, high inequality makes it more difficult to boost productivity. Three areas shed some light on these trends: informality, lack of skills, and business conducts.

Informality is pervasive in the region, both among firms and workers. These tend to be driven by distortions, such as taxes and regulations. A strong positive correlation can be observed between the size of firms and productivity. In the region, firms tend not to grow (e.g. in 40 years, Mexican firms double their employees,

versus 8 times in US firms). The empirical analysis shows that firm size responds to (dis)incentives, notably from administrative regulation and tax regimes.

Increase in education coverage has helped, but quality is still low. Preliminary estimates from PISA 2015 show that very few students reach the highest scores achieved in Asian economies. This adds to inadequate social-emotional skills. As shown in the Latin American Economic Outlook 2015, LAC is the region with the highest skills gap, even in high-value added sectors (advanced machinery, automotive). Investment in teachers, through training and incentives, is essential to improve education quality. Vocational education and adult training would also help to reduce skills mismatches.

Firms' responsible conduct can help address externalities and foster sustainable growth. The analysis with panel data on the environmental, financial, social, and governance behaviour of Latin American and North American firms shows that firm performances are positively associated with good Environmental, Social and Governance scores. Governments could foster these good practices implementing policies on environmental sustainability (e.g. taxes and emission permits), social sustainability (e.g. flexible hours, teleworking, paternity leave, child care) and responsible governance (e.g. remuneration transparency and diversity of board members with quotas).

The discussion corroborated these policy areas. The audience stressed the importance of monitoring policy implementation and ongoing evaluation of public policies. The discussion added two cross-cutting dimensions to be analysed in depth: the middle class and gender gaps.

Panel 2A – Cities and agglomeration – How do they affect productivity?

Chair:	Claudia Serrano, Ambassador of the Permanent delegation for Chile to the OECD.
Introduction:	Joaquim Oliveira-Martins, Head of the Regional Development Policy Division, OECD.
Panelist 1:	Jose Miguel Benavente , Head of the Competitiveness and Innovation Division, IDB.
Panelist 2:	Bernardo Alves Furtado, Coordinator of Innovation, Regulation and Infrastructure at IPEA,
	Brazil.
Panelist 3:	Rudiger Ahrend, Head of the Urban Development Programme, OECD.

The objective of the panel was to discuss the relationship between urbanisation and productivity, which presents different profiles in Asia and Latin America. Recent OECD work shows that productivity tends to be higher in large urban centres in Asia, which helps convergence in terms of GDP per capita. However, this is not happening in Latin American countries, thus raising questions about the form and quality of the process of urbanisation. In principle, the size of cities tends to increase the external economies (specialisation, job matching and knowledge interactions), with a positive impact on productivity and wages. OECD evidence shows that the governance (measured by administrative fragmentation) of cities matters for their level of productivity, as well as for the inequality and level of segregation within cities. OECD work also shows that large urban areas generate growth spill-overs for surrounding regions. Rural regions close to cities tend to display a much stronger productivity performance than remote rural regions. To mobilise the regional productivity catching-up potential, a multi-level governance system is required. This requires an enhanced role for subnational governments, i.e. some form of decentralisation. Chile appears in this respect as one of the most centralised countries in the OECD.

Jose Miguel Benavente (IDB) explained that productivity needs to be understood in a systemic context of cities & urban-rural linkages. Productivity shows high levels of heterogeneity not only between firms and between sectors, but also between geographical areas. When analysing and discussing geographical improvements in productivity, there are some interesting dimensions: the relevance of tacit knowledge, scale (critical masses, inputs and distance costs) and static versus dynamic efficiency. The institutional structure is key for reducing coordination problems and state failures: reducing policy trade-offs, avoiding policy capture

and reconciling *bottom-up* and *top-down* policies. When increasing public expenditure at a regional level (for public and club goods) or in a decentralization process, it is important to consider the relative city sizes between LAC and OECD countries. The distribution of cities in Latin America is very concentrated towards large cities, so decentralization needs to take into account the strong asymmetries and different levels of competencies across municipalities.

Bernardo Alves Furtado (IPEA, Brazil) presented evidence from Brazilian cities confirming the role of agglomeration benefits related to city size. It also confirmed that administrative fragmentation reduces agglomeration benefits. Congestion and poor mobility in large cities affects the poorest households in a much stronger way. Thus, policies that are good for efficiency of cities can also have a strong impact on inclusion. Complementarities between equity and efficiency tend to be stronger at the city level. A modelling framework for 48 Brazilian Metropolitan areas provides indications on the potential impact of merging municipalities within metropolitan areas, together with a number of spatially determined variables (output, jobs, income, etc).

Rudiger Ahrend (OECD) presented work showing that land use regimes can have a strong impact on socio-economic outcomes. The benefits from large agglomerations are not automatic because not everybody is affected in the same way by land use rules. The amount of developed land per capita varies strongly across countries, but most of the differences are located in commuting zones rather than urban centres. While developed land is growing everywhere, per capita land use is declining in many countries (US, Norway, UK, etc). In this context, larger cities tend to have lower per capita land consumption. Differences in GDP explain only little of the difference in land consumption, thus regulations have a key role. Housing costs have risen strongly in most OECD countries and there is some evidence that those can be related to overly restrictive land use policies. The latter can harm inclusiveness via rising housing costs. On the other hand, overly permissive land use policies will likely affect productivity and sustainability of cities (notably by generating urban sprawl). A right balance needs to be found. Incentives matter to make planning more flexible and foster good land use. For that, one needs a much better alignment between land use and other policies. In particular, fiscal and tax incentives are often misaligned to land use objectives.

In the ensuing discussion, participants raised questions about how regions and cities can contribute to national development strategies, in particular when rural-urban migration results in productivity gains in the agricultural sector. The role of medium-sized cities emerged as potentially important to generate jobs in the tertiary sector that could absorb part of the excess labour in rural areas. Other participants raised questions about the role of ICT and teleworking in reducing commuting flows in large cities. All the evidence so far is that ICT did not reduce distance to work, but has rather provided solutions to deal with proximity and mobility in cities. Chile's Ambassador Claudia Serrano, who chaired the panel, concluded by stressing the importance of integrating the geographic and place—based components of productivity into the GFP policy discussion. These elements have been somewhat neglected so far, even though most of the evidence suggests that they play an important role in determining the productivity potential of economies dominated by service sectors, which are mostly located in cities. In parallel, development of tradable sectors, manufacturing and GVCs will probably be located in non-metropolitan areas close to cities. As a consequence, it is also important to analyse the connectivity between those areas and the cities. This should complement and enhance the impact of traditional structural reforms.

Panel 2B – Innovation, knowledge and global value chains

Chair:	Victor Bernal, Vice-Minister of SMEs (MIPyMES) - Ministry of Industry and Commerce, Paraguay.
Introduction:	Nick Johnstone, Head of the Structural Policy Division, OECD.
Panelist 1:	Leonardo Iacovone, Senior Economist, Global Competitiveness and Trade Practice, World Bank.
Panelist 2:	Rodrigo Wagner, Academic University of Chile.
Panelist 3:	Gustavo Cresni, Senior Specialist in Science and Technology IDB

The purpose of the panel was to discuss the "international" aspects of productivity, i.e. the role of participation in GVCs on productivity and, vice versa, the role of productivity in accessing GVCs. Countries want to realise benefits from their participation in GVCs, such as obtaining knowledge spillovers, but this often proves to be difficult. This raises the question of best practice in dealing with firms at the "frontier", such as empowering SMEs to become more productive and participating in activities requiring advanced technologies, either as suppliers of GVCs or as exporters.

The Chair of the session (**V. Bernal**) initiated the session with a discussion of recent experience in Paraguay on the integration of Paraguay in regional value chains in a number of sectors (e.g. machine parts, toys) with Brazil and other partners in the region. The OECD Secretariat (**N. Johnstone**) provided new evidence on the limited regional integration of both value chains and innovation networks in the region, in particular in comparison with other regions of the world.

Empirical work using new a survey of Mexican firms (L. lacovone) suggests that few firms are able to participate in GVCs (less than 3 % of firms in Mexico). These firms have the following characteristics: they are large; highly productive; more capital intensive; well managed; and have access to broadband digital technology. Lack of information often hinders participation in GVCs. Two main policy interventions can help: improving infrastructure and connectivity, enhancing access to information about opportunities to participate in GVCs. Separate research using firm-level data suggests that IT investment is not enough to improve firms' performance (as measured by sales per worker). Firms in sectors facing low competition (as measured by imports from China) get no benefit from investing in IT while firms investing in IT and participating in sectors facing strong competitive pressure obtain high positive returns to investment in technology. This is because firms facing competition have the right incentives not only to invest in IT but also to do effort in complementary innovation (organizational and marketing).

R. Wagner presented evidence that participation in GVCs is affected by "geography", due to trade costs, especially transport over long distances. For Chilean firms, participation is hindered by the limited size of markets within short geographical distance, as opposed to European firms which are close to large markets. In addition, trade with neighbouring countries is found to be influenced by the rule of law in these countries, especially contract enforcement regimes. Contract enforcement is an essential element in the setting up of regional value chains because firms do not want to incur excessive risk when trading across the border. This effect is very strong in Latin America because contract enforcement varies greatly across countries. Chile is a case in point, with relatively strong institutions to encourage contact enforcement, but not necessarily in trade partners. As a result, there would be clear benefits to cooperate regionally in order to encourage "trust" in contractual relations across borders. This is particularly important for sectors which rely upon customised inputs. Multinational enterprises are able to avoid this problem because they own production facilities in the countries where they operate are therefore able to internalise risks, but not domestic firms. Policy can play a role to reduce contract enforcement risk with mechanisms such as international arbitration, guarantees for exporters, insurance against payment default, etc.

G. Crespi presented evidence on within-sector heterogeneity in productivity performance, with persistence over time. Heterogeneity prevails among small firms in non-tradable sectors; unexpectedly, there is also heterogeneity among large firms in tradable sectors. This raises the important question of the role of spillovers from frontier to laggard firms. Public support to innovation can help reduce the heterogeneity by increasing spillovers and reducing productivity gaps. Empirical evidence suggests that public interventions can reduce the productivity gap by as much as 65%. Examples of public interventions include support toward export orientation and incentives to increase collaboration among firms in the same sector to facilitate technological spillovers.

Additional information

