# OECD Economic Surveys
# ARGENTINA

**MARCH 2019**




OECD

# OECD Economic Surveys: Argentina 2019



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**Please cite this publication as:**
OECD (2019), *OECD Economic Surveys: Argentina 2019*, OECD Publishing, Paris.
*https://doi.org/10.1787/0c7f002c-en*

ISBN 978-92-64-72057-2 (print)
ISBN 978-92-64-17276-0 (pdf)

OECD Economic Surveys
ISSN 0376-6438 (print)
ISSN 1609-7513 (online)

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*The Survey was discussed at a meeting of the Economic and Development Review Committee on 22 January 2019 and is published under the responsibility of the Secretary-General of the OECD.*

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## Basic Statistics of Argentina, 2017

(Numbers in parentheses refer to the OECD average)*

| | | | | | |
|---|---|---|---|---|---|
| **LAND, PEOPLE AND ELECTORAL CYCLE** | | | | | |
| Population (million) | 44.0 | | Population density per km² | 16.2 | (35.8) |
| Under 15 (%) | 24.9 | (17.9) | Life expectancy (years, 2016) | 76.6 | (80.6) |
| Over 65 (%) | 11.2 | (16.8) | Men | 72.8 | (77.8) |
| | | | Women | 80.3 | (83.2) |
| Latest 5-year average growth (%) | 1.1 | (0.6) | Latest general election | | October 2017 |
| **ECONOMY** | | | | | |
| Gross domestic product (GDP) | | | Value added shares (%) | | |
| In current prices (billion USD) | 639.2 | | Primary sector | 9.9 | (2.4) |
| In current prices (billion ARS) | 10 555.8 | | Industry including construction | 22.4 | (26.9) |
| Latest 5-year average real growth (%) | 0.7 | (2.1) | Services | 67.7 | (70.7) |
| Per capita (000 USD PPP) | 20.9 | (43.7) | | | |
| **GENERAL GOVERNMENT** Per cent of GDP | | | | | |
| Expenditure | 41.8 | (41.3) | Gross financial debt | 57.6 | (110.9) |
| Revenue | 34.8 | (39.1) | | | |
| **EXTERNAL ACCOUNTS** | | | | | |
| Exchange rate (ARS per USD, 2017) | 16.5 | | Main exports (% of total merchandise exports) | | |
| Exchange rate (ARS per USD, March 2019) | 40.0 | | Food and live animals | 44.2 | |
| PPP exchange rate (USA = 1; 2017) | 11.5 | | Machinery and transport equipment | 13.2 | |
| In per cent of GDP | | | Chemicals and related products, n.e.s. | 9.4 | |
| Exports of goods and services | 11.2 | (55.7) | Main imports (% of total merchandise imports) | | |
| Imports of goods and services | 13.8 | (51.3) | Machinery and transport equipment | 50.0 | |
| Current account balance | -4.9 | (0.4) | Chemicals and related products, n.e.s. | 15.9 | |
| Net international investment position | 3.5 | | Manufactured goods | 10.8 | |
| **LABOUR MARKET, SKILLS AND INNOVATION** | | | | | |
| Employment rate for 15-64 year-olds (%) | 60.8 | (67.7) | Unemployment rate, Labour Force Survey (age 15 and over) (%) | 7.2 | (5.8) |
| Men | 70.6 | (75.4) | Youth (age 15-24, %) | 19.3 | (11.9) |
| Women | 49.2 | (60.1) | Tertiary educational attainment 25-64 year-olds (%) | 21.4 | (36.9) |
| Participation rate for 15-64 year-olds (%) | 65.5 | (72.0) | Gross domestic expenditure on R&D (% of GDP, 2016) | 0.5 | (2.3) |
| **ENVIRONMENT** | | | | | |
| Total primary energy supply per capita (toe)[b] | 2.0 | (4.1) | $CO_2$ emissions from fuel combustion per capita (tonnes, 2016) | 4.3 | (9.0) |
| Renewables (%)[b] | 7.7 | (10.2) | Exposure to air pollution (more than 10 µg/m³ of PM2.5, % of population, 2015) | 44.2 | (75.2) |
| **SOCIETY** | | | | | |
| Income inequality (Gini coefficient)[c] | 0.424 | (0.314) | Median disposable household income (000 USD PPP)[c] | 7.0 | (22.9) |
| Relative poverty rate (%)[c] | 19.4 | (11.8) | Education outcomes (PISA score, 2012) | | |
| Public and private spending (% of GDP) | | | Reading | 396 | (496) |
| Health care | 4.8 | (8.8) | Mathematics | 388 | (494) |
| Pensions (Public)[d] | 8.7 | (8.2) | Science | 406 | (501) |
| Education (primary, secondary, post sec. non tertiary, 2014) | 4.4 | (3.5) | Share of women in parliament (%) | 38.9 | (29.2) |

* Where the OECD aggregate is not provided in the source database, a simple OECD average of latest available data is calculated where data exist for at least 29 member countries.

a. 2016 data for the OECD.

b. 2016 data for Argentina.

c. 2015 data for the OECD. For Argentina, based on household data EPH for the fourth quarter of 2017.

d. 2013 for OECD

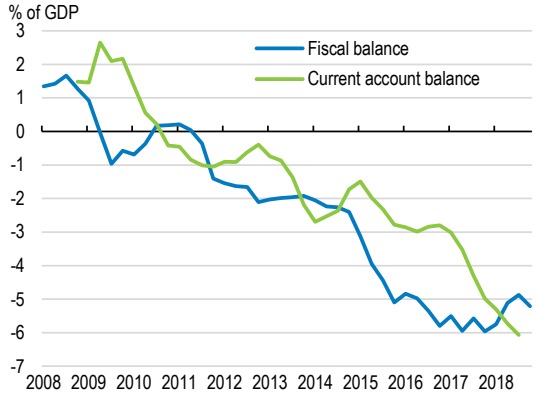
*Source*: Calculations based on data extracted from the databases of the following organisations: OECD, International Energy Agency, World Bank, International Monetary Fund and Inter-Parliamentary Union

# *Executive summary*

## The economy is in recession after markets reacted to existing vulnerabilities

**The economy is in recession.** A strategy of reducing the large fiscal deficit only gradually, the reliance on its foreign financing and high interest rates due to tight monetary policy opened up significant vulnerabilities (Figure A). In April 2018, markets reacted with a reversal of capital inflows, exacerbating a slowdown of currency inflows due to a record drought. The Argentinian peso depreciated and market sentiment deteriorated abruptly, generating severe liquidity challenges. Confidence and domestic demand declined markedly, putting an end to seven quarters of growth. As public debt is largely denominated in foreign currency, the peso depreciation raised it by about 30% of GDP, pushing it above levels observed in other emerging market economies.

**Figure A. Imbalances have built up**




*Source*: INDEC, Ministry of the Treasury.

StatLink http://dx.doi.org/10.1787/888933942391

**Macroeconomic policies responded swiftly to these challenges**. While a frontloaded fiscal consolidation and tight monetary policy will lead to a strong contraction of domestic demand in the short term, the adjustment being implemented should eventually pave the way for reduced imbalances. The current account deficit is expected to decrease and the potential for stronger exports in the future is substantial as the depreciated exchange rate is the most competitive one that Argentina has had in 10 years.

**Risks are related to the contractionary effects of policies and to external factors.** The projected return of market confidence could take longer to materialise if the contractionary effect of macroeconomic policies is stronger or if market volatility remains high. Exposure to external risks is decreasing as the sizeable twin deficits on fiscal and current accounts decline. Upcoming elections in October 2019 imply uncertainty about the continuation of reforms.

**Table A. The economy is projected to recover**

| | 2018 | 2019 | 2020 |
|---|---|---|---|
| Gross domestic product | -2.5 | -1.5 | 2.3 |
| Private consumption | -2.1 | -4.1 | 2.1 |
| Gross fixed capital formation | -5.1 | -15.3 | 3.3 |
| Exports | -2.0 | 15.0 | 7.9 |
| Imports | -2.5 | -4.7 | 4.2 |
| Unemployment rate | 9.5 | 12.0 | 13.0 |
| Consumer price index (Dec-on-Dec) | 47.6 | 34.0 | 25.0 |
| Fiscal balance | -5.2 | -3.2 | -1.7 |
| Public debt (gross, % of GDP) | 76.1 | 74.1 | 71.2 |
| Current account (% of GDP) | -5.2 | -1.2 | -0.6 |

*Source*: OECD projections.

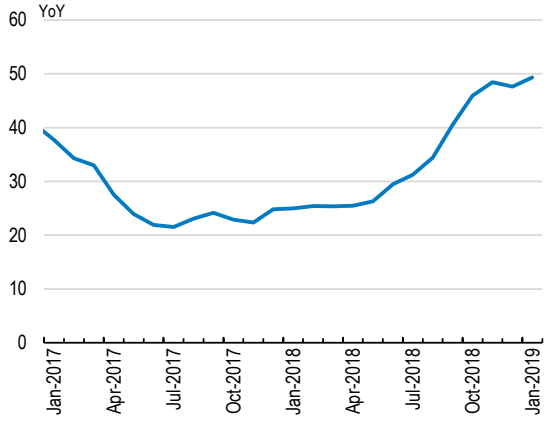
## Fiscal and monetary policies are now strongly contractionary

**The initial strong reliance on tight monetary policy coupled with a gradual fiscal adjustment has given way to strong simultaneous fiscal and monetary contractions.** The new fiscal targets aim for a balanced primary result in 2019 and a 1% of GDP primary surplus thereafter. This implies a strong consolidation effort and curtail domestic demand. Its implementation poses political challenges, but not making the adjustment would aggravate risks of a much more prolonged and, ultimately deeper, downturn. Indeed, adhering to the fiscal targets will be seen by markets as a litmus test for the Argentinian authorities' willingness to resolve the serious macroeconomic imbalances facing the country.

### Inflation has spiked

**Bringing down high inflation has proven very challenging (Figure B).** Recognising weak transmission of monetary policy, the Central Bank abandoned inflation targeting and has committed to keeping the monetary base constant in nominal terms until July 2019. A new framework for currency interventions allows the exchange rate to float freely within a moving corridor, while allowing limited interventions if the exchange rate leaves the corridor.

**Figure B. Inflation has spiked**




*Source:* INDEC.

StatLink https://doi.org/10.1787/888933942296

### Structural reforms hold the key to stronger growth

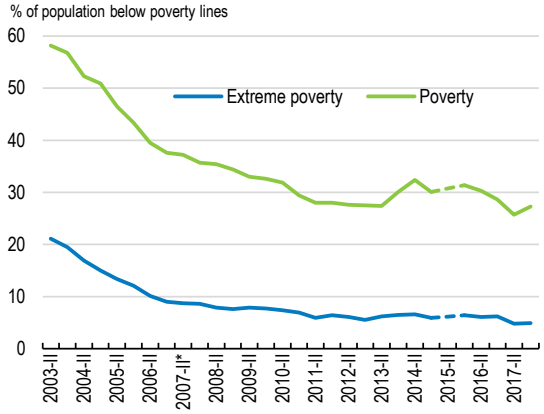
**Since 2015, the current administration has made considerable efforts to create conditions for sustainable and inclusive growth.** Recent reforms include a tax reform, changes in the fiscal relations between the provinces and the central government, a new competition law, improvements in the sustainability of the pension system, new legal frameworks for capital markets and for public-private partnerships, the creation of an independent fiscal council and a commitment to bolster the independence of the Central Bank. But much more remains to be done.

### Many policies are in place to protect the poor and most vulnerable groups

**Around 27% of Argentinians live in poverty and 5% in extreme poverty, half the level after the last major crisis in the early 2000s.** This declining trend continued during 2016 and 2017, until the recession raised poverty again during 2018 (Figure C).

Social policy will remain important to achieve more inclusive growth and cushion the current recession. Fiscal targets have been defined in a way to allow some limited space to expand well-targeted benefits, which should be used to protect low-income households from the burden of the recession.

**Figure C. Poverty has been on a declining trend**




*Source*: Tomarolli, L. (2018), Series Comparables de Indigencia y Pobreza, CEDLAS, UNLP, INDEC as of 2016-II.

StatLink http://dx.doi.org/10.1787/888933942638

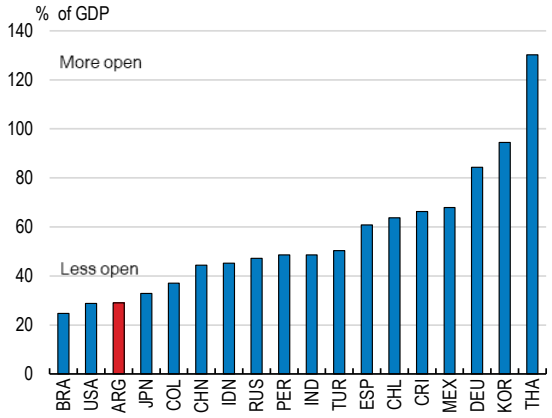
### Argentina has not shared in the benefits of international trade

**Argentina is significantly less integrated into the world economy than other emerging market economies (Figure D).** The main reason for this are high tariffs and non-tariff trade barriers. Reducing trade barriers would raise consumer purchasing power, especially for low-income households, and would reduce the cost of firms' inputs.

Trading little, Argentina has also remained on the side lines of global value chains, all of which represents significant lost opportunities for growth and well-being.

Stronger integration into the world economy would also raise competition and lead companies in shielded sectors to become more productive. Currently, many jobs are trapped in activities with limited potential for productivity and wage growth. Priority should be given to reducing tariff barriers in capital and intermediate goods, to support competitiveness and job creation.

**Figure D. Trade flows are small**




*Source*: OECD Economic Outlook database.

StatLink http://dx.doi.org/10.1787/888933942999

**Policies can cushion adjustment costs of integration into the global economy**

**As jobs move across firms and industries, new opportunities arise.** Exporting firms are more likely to be formal and pay 30% higher wages. But job reallocation can also require re-training and result in temporary income losses. Policies that could ease the transition include enhancing training and social protection, improving the functioning of product markets and strengthening innovation.

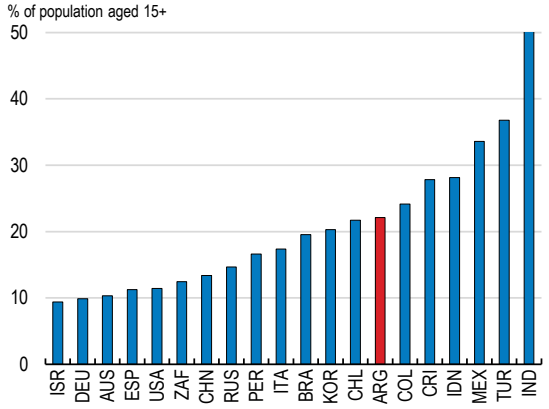
High severance payments are currently the principal insurance mechanisms against dismissal-related income losses, but only for workers in the formal sector. Their high and uncertain costs for employers reduce incentives for creating formal jobs, which could delay job creation during the recovery. For new jobs, extending the current unemployment insurance scheme used in the construction sector, which is based on individual accounts, economy-wide while reducing severance costs would make formal hiring less costly and protect individuals rather than specific jobs.

**Education and health policies are crucial for ensuring inclusive growth**

**Improvements in the quality of education have high pay-offs.** They prepare future generations for new opportunities, address skill shortages and can help raise low female labour participation (Figure E).

40% of secondary students leave school without a degree, often owing to a failure to acquire essential skills during early childhood. This could be addressed by further expanding early childhood education, which would also allow more women to seek remunerated employment in the workforce, increasing their incomes and life-options.

**Figure E. Differences in employment rate between men and women**




*Source*: ILO; INDEC.

StatLink http://dx.doi.org/10.1787/888933942999

| MAIN FINDINGS | KEY RECOMMENDATIONS |
|---|---|
| **Recovering from the crisis** | |
| Following a sudden reversal of capital inflows, liquidity has dried up and an IMF programme was agreed. | Adhere to fiscal commitments by reducing the fiscal deficit in line with announced targets, prioritising expenditure reductions. |
| The current recession is likely to worsen social conditions. Fiscal commitments allow some additional social spending if poverty increases. | Use the fiscal space granted to raise spending on well-targeted social transfers if social indicators deteriorate. |
| The large share of foreign-currency denominated debt exposed the public sector to currency risks. | Develop a domestic-currency denominated sovereign bond market over time. |
| **Improving macroeconomic policies and economic governance** | |
| VAT exemptions with low social impact undermine revenues. Only 15% of the economically active population pay income taxes. | Broaden the VAT base by reducing exemptions and special rates.<br>Lower the basic deduction in personal income taxes.<br>Remove the personal income tax exemption of civil servants in the judiciary branch entirely. |
| The independence of the Central Bank has been questioned and this has complicated the fight against inflation. | Implement the planned changes to the charter of the Central Bank to strengthen its independence and credibility.<br>Limit the dismissal of its governor to severe misconduct. |
| The Anti-Corruption office has been instrumental in fighting corruption but it lacks functional autonomy. | Strengthen the operational and financial autonomy of the anti-corruption office and guarantee adequate resources to fulfil its mandate. |
| **Making growth more inclusive** | |
| Rapid ageing jeopardises the long-term sustainability of the pension regime. Generous special regimes for select professions are costly and unfair. | Align the conditions of special pension regimes with general pension rules. |
| High education spending produces weak results.<br>Teacher training institutions are fragmented and many of them are too small to operate efficiently. | Improve spending efficiency in education.<br>Merge smaller teacher training institutions. |
| Female employment is low and school drop-out rates are high. | Keep expanding early childhood education. |
| Many workers lack the necessary skills to achieve their earnings potential. | Scale up active labour market policies with a training content. |
| One third of the labour force is informal with no social protection while formal jobs have rigid employment protection legislation. | Extend the unemployment insurance scheme with individual accounts currently used in the construction sector economy-wide while reducing severance costs. |
| Sectoral health insurance schemes are fragmented, often too small and face governance challenges. | Merge smaller health insurance schemes. |
| **Fostering the integration into the world economy** | |
| High trade barriers shield the economy from benefits of international competition. | Reduce tariff and non-tariff barriers, starting with capital goods and intermediate inputs. |
| Greater integration into the global economy will reallocate labour to more productive jobs and sectors. | Bolster adult training programmes and vocational education and training (VET) to ease the transition, with a special focus on women. |
| Regulations on product markets and administrative barriers restrict market entry and hamper competition. | Reduce domestic regulatory barriers to entrepreneurship and market entry, including at the level of provincial and local governments. |
| **Strengthening green growth** | |
| Greenhouse gas emissions have been declining. Deforestation is on a downward trend. | Continue developing an automatic early warning system to halt deforestation.<br>Strengthen proper enforcement of the forest law, especially at the provincial level. |
| Agrochemicals use has increased substantially and although the kind of pesticides being used are less hazardous than others, uncertainty about health risks remains. | Undertake an in-depth evaluation of the negative externalities associated with different types of pesticides, their level of application and impact at specific locations and hotspots, with a view to implementing targeted measures to manage pesticide use.<br>Pass legislation at the national level regarding the environmental management of all chemicals. |
| Air pollution creates significant health damages. | Implement measures to reduce air pollution, including taxing vehicles according to emissions. |

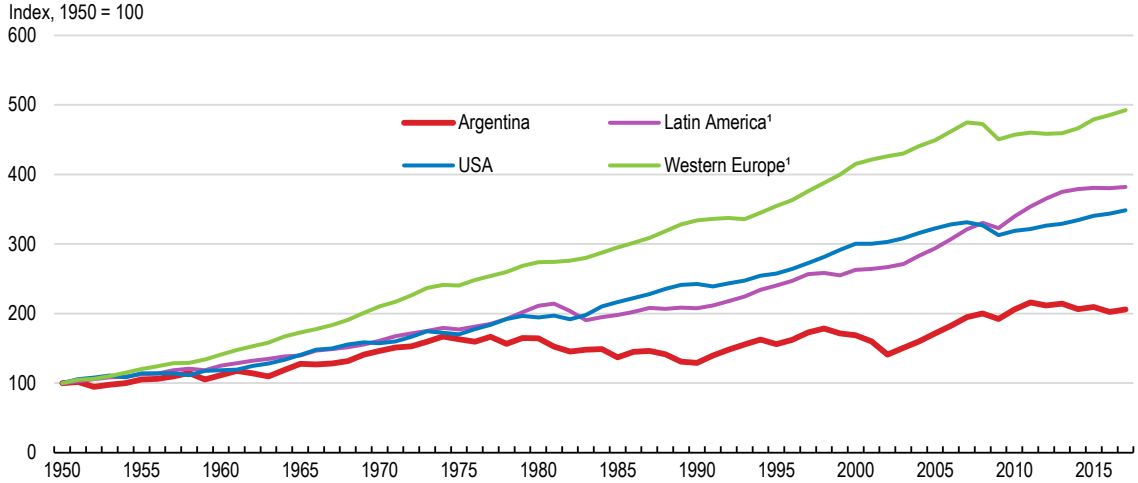
# Key policy insights

Significant reforms have been undertaken since 2015 to strengthen growth and well-being, as reported in the 2017 OECD Economic Survey of Argentina. Access to international capital markets was restored, the credibility of national statistics was re-established and social protection was enhanced while cutting back on ineffective spending. A tax reform, a new competition law, improvements in the sustainability of the pension system, new legal frameworks for capital markets and for public-private partnerships, the creation of a new independent fiscal council and a commitment to strengthen the independence of the Central Bank followed.

In the medium term, these and additional reforms will help to raise prosperity for all Argentinians by strengthening productivity, which is the principal long-term challenge. Over many decades, the economy has been held back by weak policy settings. Productivity growth has been low, and even negative over the last 20 years. This explains why incomes have fallen behind those in Latin American and other countries over time (Figure 1).

**Figure 1. Argentina has lost ground relative to other economies**

GDP per capita




1. Western Europe includes: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom; Latin America includes: Brazil, Chile, Colombia, Mexico and Peru.

*Source*: OECD calculations based on Bolt and Van Zanden (2014) (see http://www.ggdc.net/maddison/maddison-project/data.htm).

StatLink https://doi.org/10.1787/888933942315

The severe economic crisis that unfolded as of April 2018 and pushed the economy into a deep recession, however, has shifted the immediate policy focus to restoring confidence and unwinding significant fiscal and external imbalances. As confidence tumbled, the

value of the currency halved while interest rates, unemployment and inflation soared. Swift and decisive policy responses were necessary and will lay the grounds for a return of macroeconomic stability, but are adding further to the downturn in the short run. Current policy plans are projected to lift the economy out of the recession, but significant risks remain around this projection.

Against this background, the main messages of the Survey are:

- Escaping the crisis requires restoring lost confidence. Building solid macroeconomic foundations and continuing reforms is a precondition for stronger and more inclusive growth.
- Creating more and better jobs will hinge on higher productivity, for which structural policy reforms are crucial.
- Supporting vulnerable groups and reducing inequalities will require a strong social transfer system compatible with fiscal sustainability, as well as education, training and health policies.

**Box 1. A glance at Argentina's economic history**

Argentina's per capita incomes were among the top ten in the world a century ago, when they were 92% of the average of the 16 richest economies (Bolt and van Zanden, 2014). Today, per capita incomes are 43% of those same 16 rich economies. Food exports were initially the basis for Argentina's high incomes, but foreign demand plummeted during the Great Depression and the associated fall in customs revenues was at the root of the first in a long row of fiscal crises. The economy became more inward-focused as of 1930 when the country suffered the first of six military coups during the 20th century.

This inward focus continued after World War II, as policies featured import substitution to develop industry at the expense of agriculture, nationalisations and large state enterprises, the rising power of unions and tight regulation of the economy. The combination of trade protection and a significant state-owned sector lessened somewhat in the mid-1950s, in a succession of brief military and civilian governments.

However, the weakness of both the external and fiscal balances continued into the 1960s and early 70s, leading to an unstable growth performance and bouts of inflation, including a first hyperinflation in 1975. The military dictatorship of the 1970s and the democratic government of the 1980s continued to struggle with fiscal crises, resulting from spending ambitions exceeding revenues and exacerbated by the Latin American debt crisis starting in 1982, and the lack of a competitive export sector after decades of import-substituting industrialisation. The country fell into a fully-fledged hyperinflation in 1989-90. Between 1970 and 1990, real per capita incomes fell by over 20%.

While the economy returned to growth after 1990 in the context of lower import tariffs, foreign investment, a currency pegged to the US dollar and falling inflation, volatility did not recede. Export competitiveness faltered following the Asian crisis and the devaluation of the Brazilian Real and by the late 1990s the economy was facing a severe recession. Rising fiscal imbalances led to the 2001 debt default and the end of the currency peg. The impoverishing effect of the crisis was exacerbated by the subsequent devaluation which wiped out large amounts of household savings. Despite the recurrent crises, the growth performance of Argentina between 1990 and 2010 allowed it to begin a process of convergence with the developed world.

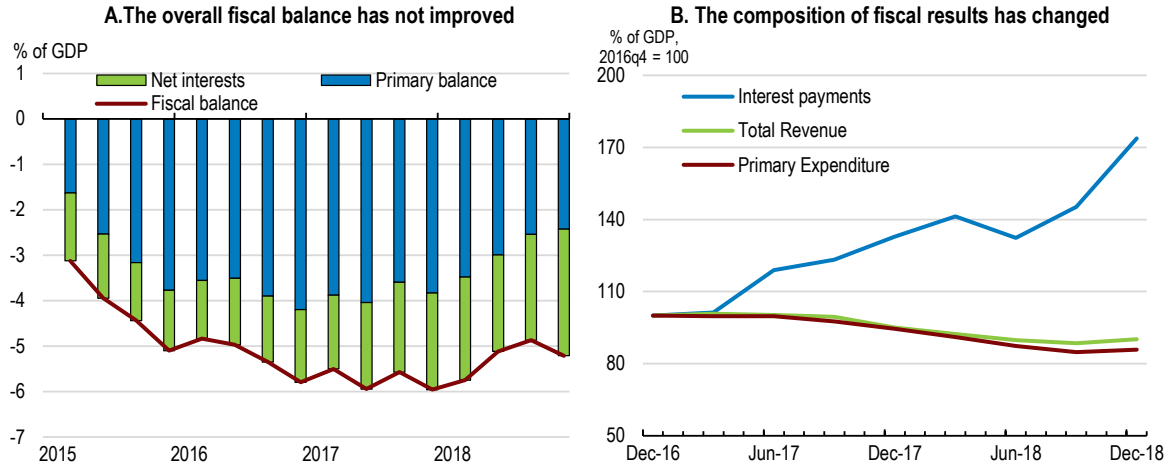
## Despite recent reforms, significant vulnerabilities have built up

The current administration faced an economy on the brink of collapse in late 2015, with a primary fiscal deficit of almost 4% of GDP and significant unpaid arrears and contingencies. Between 2007 and 2015, public expenditures increased from 28% of GDP to 40%, close to the OECD average of 42.4%. This included over 3.5% of GDP in subsidies for energy and transport, with a regressive social impact as their main beneficiaries were middle-class households in the capital region (Castro and Barafani, 2015[1]). Public employment and pension expenditures also rose visibly, the latter as a result of an expansion of non-contributory pensions. By 2015, the increasing recourse of the previous administration to one-off revenue sources and monetary financing was reaching its limits, as inflation had risen to 25% and net currency reserves were almost depleted. This resulted in a difficult choice between an immediate fiscal contraction that would have led the economy into a deep recession or the recourse to new sources of financing.

Trying to break with a history of adjustment through sharp contractions, the authorities opted for a gradual reduction of the fiscal deficit combined with efforts to improve infrastructure to ensure political support for reform. Domestic financial markets are underdeveloped and were too small to finance the transition, as domestic saving is low and often invested is foreign-currency denominated assets. At the same time, an agreement with hold-out creditors in early 2016 re-established access to foreign financing. The objective of achieving a balanced budget over a period of five years generated sizeable external borrowing needs, which was covered by issuing foreign-currency debt. In a context of low public debt, abundant international liquidity and investor interest in Argentine assets in 2016-2017, the resulting vulnerabilities appeared manageable.

While primary expenditures fell gradually, rising interest payments held back visible reductions in the overall fiscal deficit (Figure 2). Unpaid expenditure commitments of the previous administration added to primary spending in 2016, while the agreement with hold-out creditors added to interest payments. This was further exacerbated by a 2017 tax reform that reduced revenues by 2% of GDP. Previous OECD recommendations had called for a revenue-neutral tax reform (Table 7).

**Figure 2. Fiscal policy adjusted only gradually**

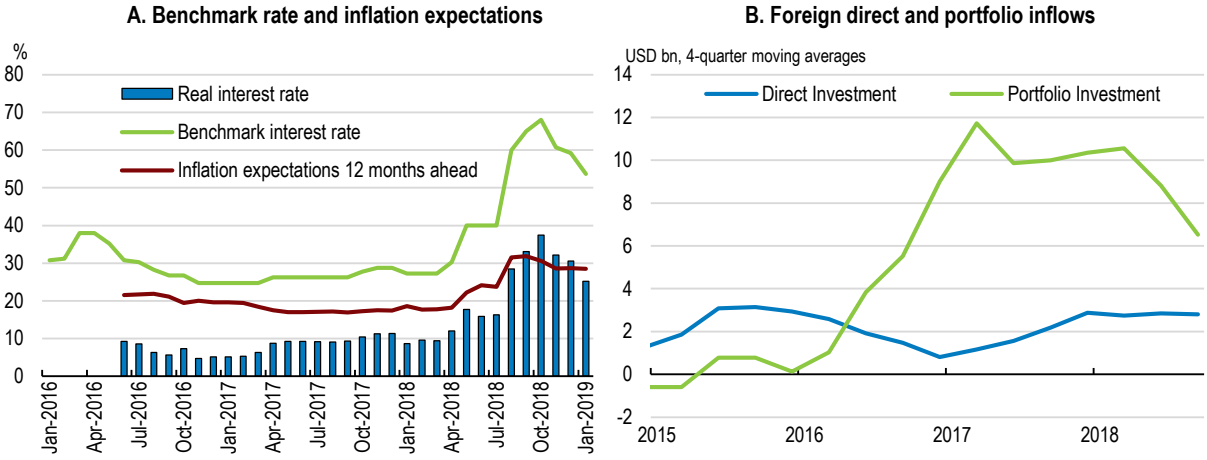



*Source*: Ministry of the Treasury, CEIC, OECD calculations.

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The moderate pace of fiscal adjustment was combined with tight monetary policy to bring inflation to single digits within two years. While the original targets turned out excessively ambitious, high ex-ante real interest rates of over 8% reflected the strong burden put on monetary policy (Figure 3). These high interest rates attracted large portfolio capital inflows.

**Figure 3. High interest rates attracted portfolio inflows**

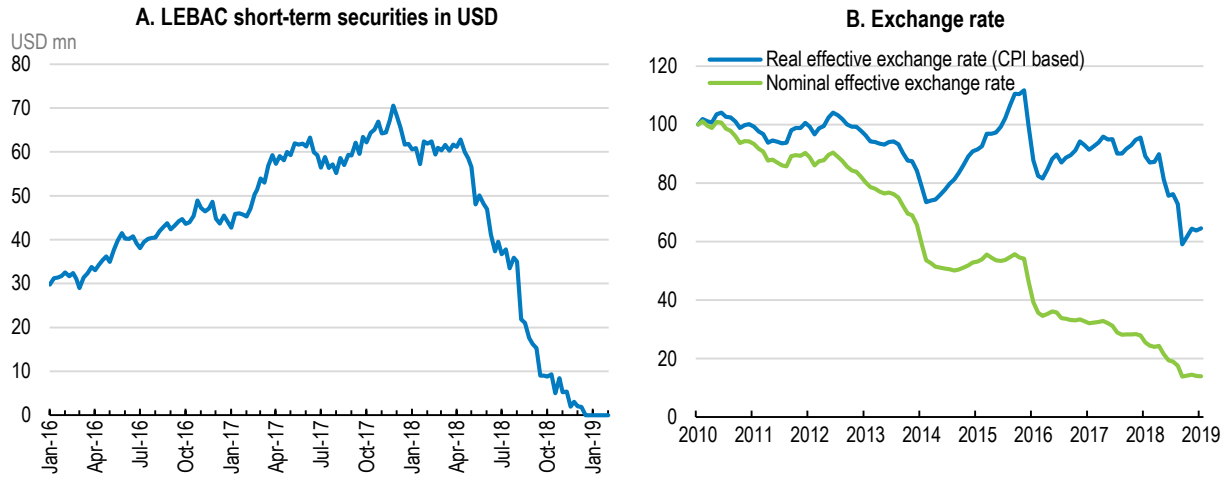



*Source*: INDEC, CEIC.

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Capital inflows created a number of challenges and vulnerabilities (Figure 4). The real exchange rate appreciated, holding back necessary adjustments in the real economy, including the development of new export opportunities. The short maturities of capital inflows, including large carry trades, generated significant roll-over risks. Short-term Central Bank liabilities (LEBACs) used for the sterilisation of the inflows and accumulation of reserves had reached 10% of GDP by mid-2018.

**Figure 4. Capital inflows implied real appreciation and short-term vulnerabilities**

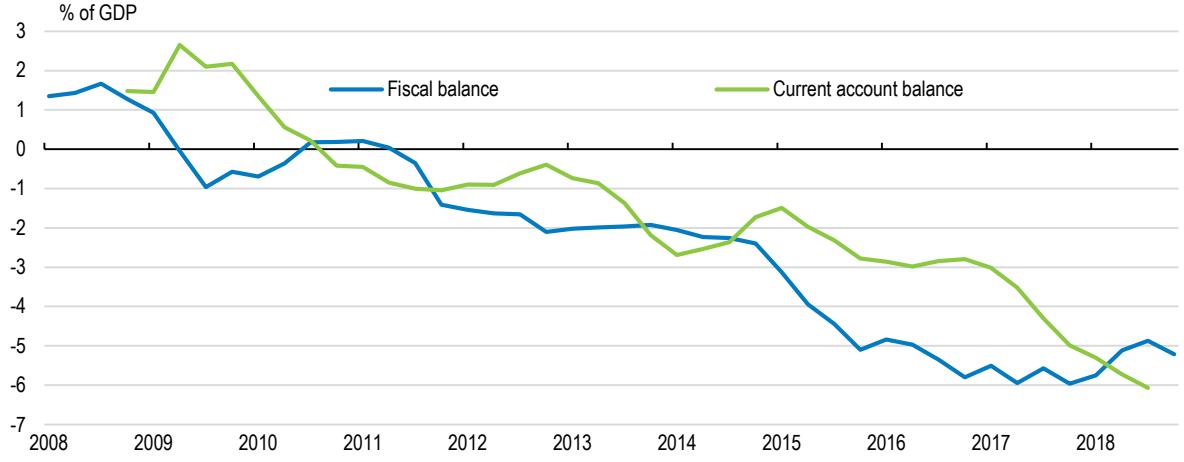



*Source*: OECD Exchange rate database, Central Bank.

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As the fiscal deficit remained high and capital inflows held up strong, fiscal and external imbalances widened, making the economy increasingly vulnerable (Figure 5). The size of the current account deficit doubled between end-2015 and mid-2018, peaking at 6% of GDP. At the same time, the rising headline fiscal deficit did not show a clear turnaround until mid-2018.

**Figure 5. Fiscal and external imbalances have widened**




*Source*: INDEC, Ministry of the Treasury, CEIC.

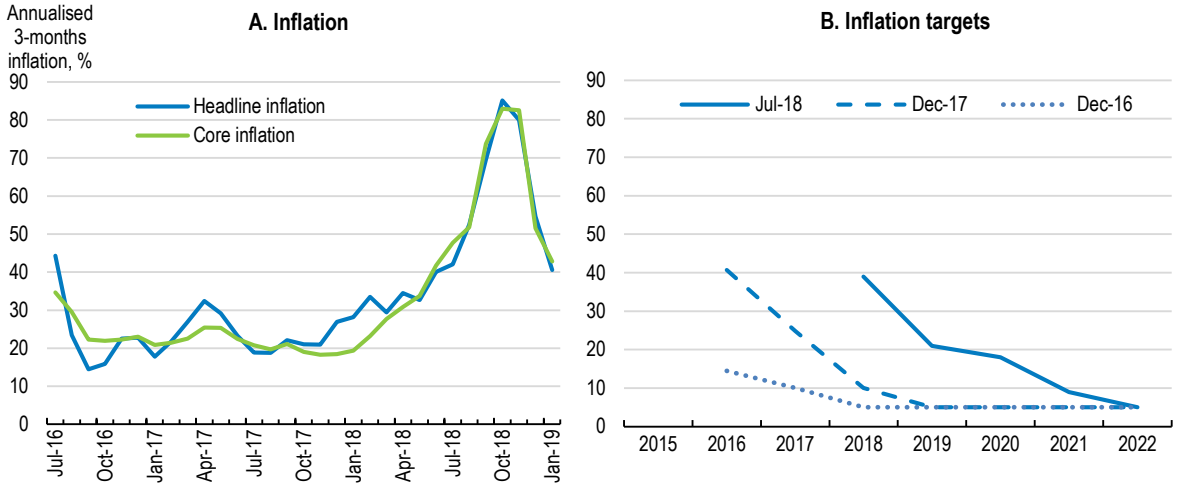
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After an initial spike in 2016 related to the removal of energy subsidies, inflation declined until early 2018 (Figure 6, Panel A). Inflation expectations were on a downward trajectory, even though above inflation targets. However, the power of monetary policy to tame inflation was significantly hampered by a weak credit channel and the need for a simultaneous adjustment of relative prices as large-scale legacy subsidies were being

reduced. Backward-looking wage negotiations further added to significant inflation inertia.

Inflation targets were revised twice by the executive, arguably adding to the low credibility of monetary policy (Figure 6, Panel B). Particularly the December 2017 revision, which led the Central Bank to lower interest rates amid high inflation, raised doubts about the *de facto* independence of monetary authorities. The Central Bank has no formal independence and its governor can be replaced by the executive at any time after a non-binding consultation with Congress. In addition, monetary financing through regular transfers of non-realised profits to the Treasury, which continued until June 7, 2018, undermined the financial independence of the Central Bank. Core inflation began to rise markedly in the aftermath of these events.

**Figure 6. Inflation has spiked as targets have moved**



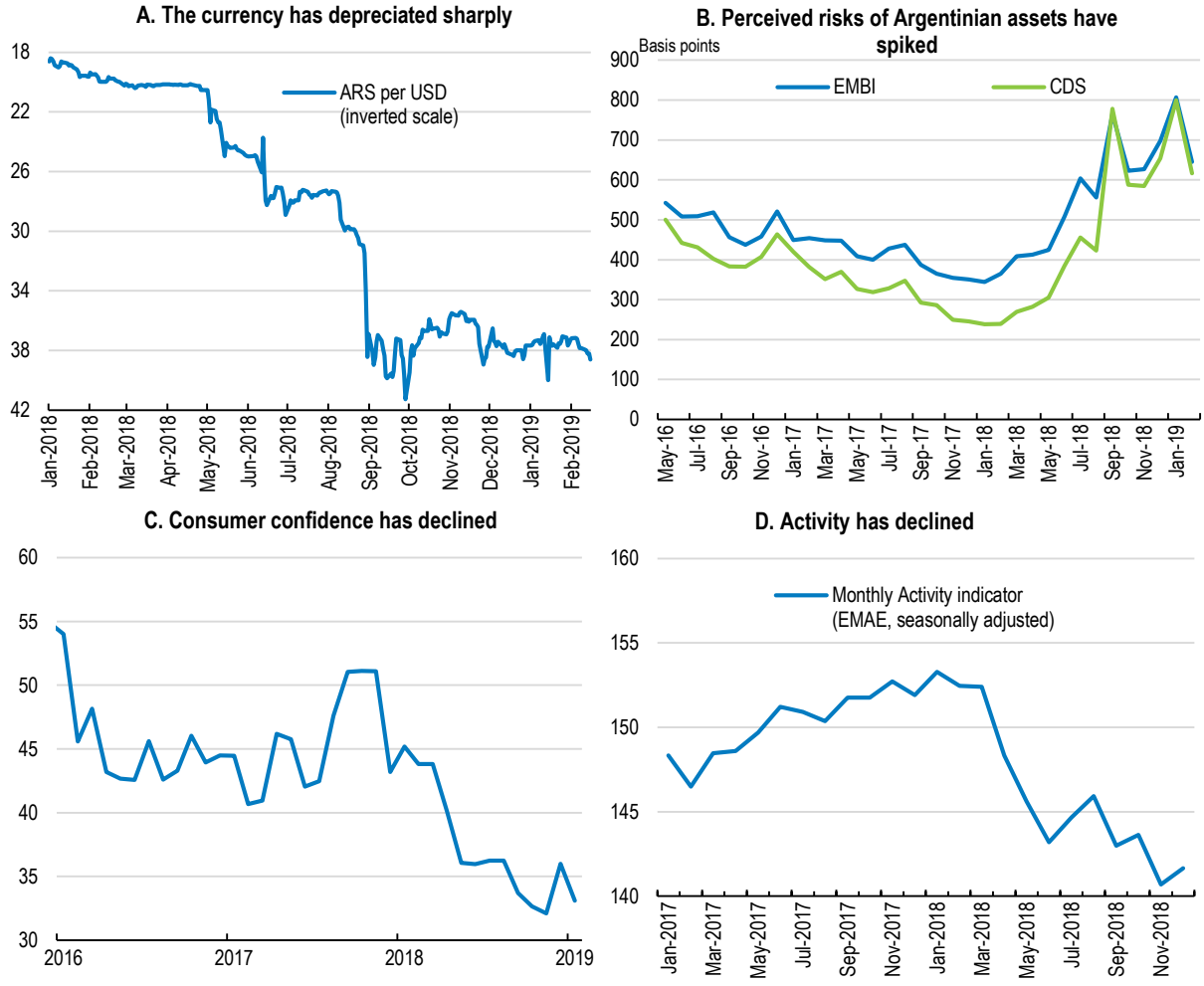

*Note:* Headline and core inflation in Panel A represent the nationwide indices as of their creation in January 2017, combined with monthly changes based on the indices for the capital region before that.
*Source*: INDEC; Central Bank of Argentina.

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## A deep recession set in after a sudden reversal of capital flows

Against this background of vulnerabilities, markets reacted with a sudden capital flight out of peso-denominated assets as of late April 2018. The value of the currency declined sharply amidst severe confidence losses, rising risk premiums, faltering growth and rising inflation (Figure 7). Over the following six months, the peso lost almost 50% of its value. While it is hard to pin down a single reason for this unexpected chain of events, possible factors include rising US interest rates and the resulting declining appetite for emerging market assets, the slow decline of the headline fiscal deficit, a lower demand for Argentinian pesos stemming from the exceptional drought and the resulting collapse of agricultural exports as well as a lack of confidence in the independence of the Central Bank and the conduct of monetary policy. Estimates suggest that overall non-resident capital flows into emerging markets declined by some USD 120 billion between 2017 and 2018 (Institute of International Finance, 2018[2]), and the weather-related shortfall of agricultural export revenues amounted to USD 8 billion, equivalent to 2% of Argentina's GDP.

**Figure 7. Short-term indicators have deteriorated**




*Source*: Central Bank, INDEC, CEIC.

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Threatened by losing access to foreign financing and a serious liquidity crunch, the authorities reacted in a timely and decisive manner by accelerating the fiscal adjustment, raising interest rates, retiring the stock of short-term LEBAC securities and seeking a USD 56.3 billion financing arrangement with the International Monetary Fund (Box 2).

The gradual approach to fiscal adjustment was abandoned and current fiscal targets aim for an elimination of the primary deficit in 2019, followed by a primary surplus of 1% of GDP in 2020 (Figure 8). These new targets imply a fiscal effort of almost 6% of GDP during 2018-2020, which is a large consolidation in historical and international comparison. The strong fiscal contraction will be a drag on growth, at least for some time, and its implementation without a majority in Congress a challenge. At the same time, not meeting the fiscal commitments would have much larger economic costs, including a major economic crisis. Adhering to fiscal targets will be seen as a litmus test for the authorities and should be the priority.

**Box 2. Argentina's IMF programme**

Between late April and September 2018, Argentina's currency depreciated by 50% as investors shunned domestic currency for dollar assets. This reflected loss of confidence due to the gradual economic adjustment plan, especially the slow reduction of the headline fiscal deficit, which implied large external financing needs, and the fact that inflation had surged again following a relaxation of monetary policy.

In July 2018, the government agreed a USD 50 billion financing arrangement with the International Monetary Fund (IMF), which was renegotiated and expanded to a total of USD 56.3 billion in September to reduce the dependence on market financing during 2019 and 2020. The programme is based on four pillars.

A first pillar of the programme is to restore market confidence through lower federal financing needs, ensured by new primary fiscal targets of 0% of GDP in 2019 and 1% in 2020 as part of a budget approved by Congress in November 2018. Providing sufficient resources to the newly created Congress Budgetary Office and a strengthening of tax authorities are further structural benchmarks under this pillar.

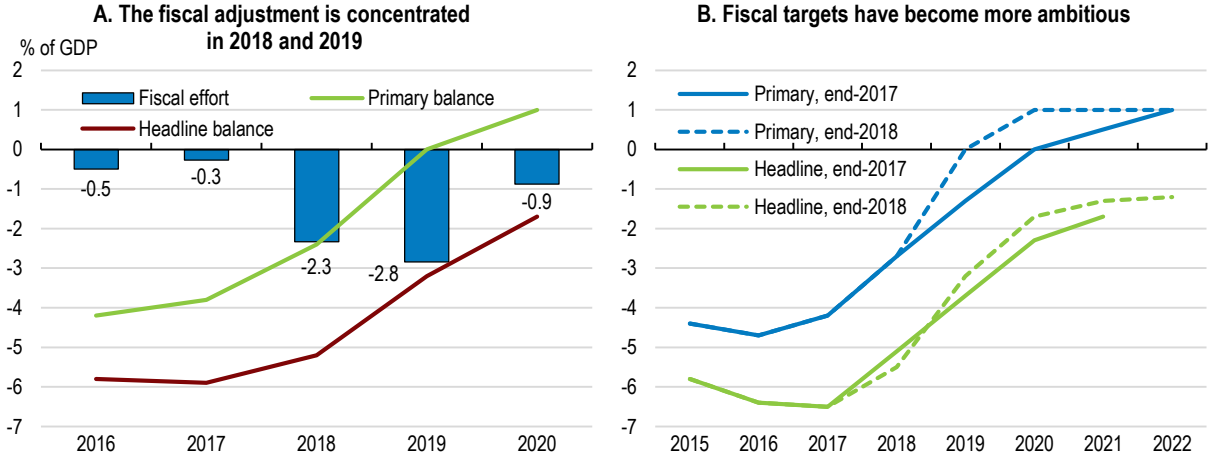
A second pillar is to protect society's most vulnerable by strengthening the social safety net, including through a redesign of assistance programmes and a protection of social spending, with the possibility of accommodating additional spending on pre-identified, means-tested social assistance projects under certain conditions.

A third pillar aims to strengthen the credibility of the Central Bank by providing it with more institutional and operational independence and autonomy, through a new Central Bank charter to be submitted to Congress. These efforts also include improvements in the Central Bank balance sheet and the extinction of short-term peso-denominated Central Bank debt in the hands of the general public (LEBACs). A new type of Central Bank debt (LELIQ) will only be sold to domestic banks. Non-transferable and non-interest bearing legacy government securities will be repurchased over time to reduce the Central Bank's net claim on the government and strengthen its balance sheet.

A fourth pillar is to lessen the strains on the balance of payments by rebuilding international reserves and reducing the current account deficit.

Adjustments of this size imply difficult choices. While some of the envisaged consolidation measures will have limited side effects on growth and inclusiveness in the short term, in other cases the potential trade-off between consolidation and other policy objectives can by eased by implementing structural reforms (OECD, 2013[3]) The fiscal adjustment is largely based on reductions in expenditures, including a cut in capital expenditures (worth 0.5% of GDP), further reductions in subsidies (0.7% of GDP), a real wage and hiring freeze for civil servants (0.2% of GDP) and a 20% real reduction of all other current expenditures (0.2% of GDP).

**Figure 8. Fiscal consolidation has been frontloaded**




*Note*: Fiscal effort is defined as the year-on-year difference of the structural primary balance, which is adjusted for cyclical factors.
*Source*: Ministry of the Treasury, CEIC, OECD calculations.

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Revenue increases will come from a new temporary tax on exports to be applied until end-2020, at 10% for exports of primary goods and services and at 7.5% on all other exports. This is expected to raise an annual 1.1% of GDP in additional revenues and has the advantage of being easy to implement. New restrictions on international trade work against the needed outward re-orientation of the economy and can only be justified by the emergency character of the situation, but the authorities have been clear that they see export taxes as a temporary emergency measure. Moreover, it is important to note that in the current context, these taxes take back only a part of the 50% depreciation. For non-commodity exports where – unlike in agriculture – competitiveness has been a serious issue in the past, the authorities should monitor carefully to what extent this new tax slows down the development of new export opportunities. It is also crucial to ensure that these taxes are not extended beyond 2020, if they cannot be phased out earlier.

Social expenditures, which make up more than half of primary spending, are being protected and can be expanded further to mitigate social hardship caused by the crisis. The agreement with the IMF provides a space of 0.2% of GDP to raise spending on well-targeted social benefits in case real-time measures of poverty deteriorate, and this space should be used as much as necessary.

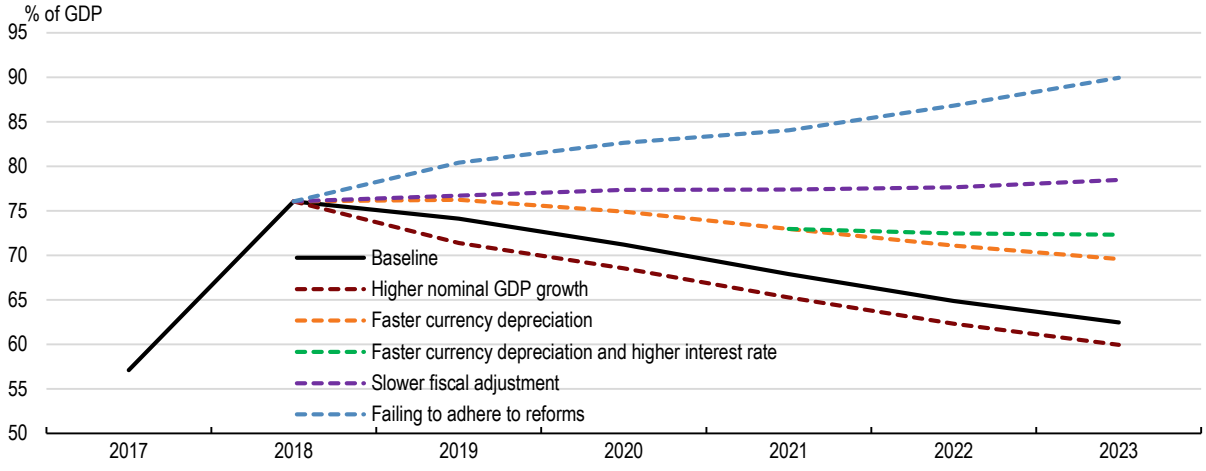
After rising over 30 percentage points due to the depreciation, gross public debt is projected to reach 76% of GDP at the end of 2018, which is among the highest for emerging economies. Over 75% of debt is denominated in foreign currency and interest payments amount to 2.8% of GDP, above the OECD average of almost 2% of GDP. Current fiscal plans are sufficient for debt to decline relative to GDP as of 2020, to reach 62% of GDP in 2023 in the baseline scenario (Figure 9). The declining trajectory of gross public debt is subject to risks, and the prospects for debt sustainability would look less benign in several alternative scenarios. For example, failing to adhere to the current ambitious fiscal targets and maintaining the 2018 primary deficit would imply a continuously rising debt, to reach 78% of GDP in 2023. Renewed market turbulence causing faster currency depreciation and higher market interest rates as of 2021, when

market financing will once again need to cover much of public financing needs, would flatten the downward trajectory of debt. In a scenario where reforms stall, both with respect to fiscal adjustment and structural reforms, implying lower growth, stronger depreciation and higher market interest rates, debt levels would rise continuously to 90% of GDP.

Looking ahead, the authorities should strengthen efforts to raise the share of domestic currency debt to reduce the vulnerability of public finances stemming from exchange rate developments, although it will take time to rebuild the necessary investor confidence in macroeconomic stability and in domestic-currency assets with longer maturities. Currently, the debt-sustainability analysis is highly sensitive to the assumed exchange rate.

At the same time, over 40% of gross public debt is held by other public sector entities including the social security fund and faces no roll-over risks. Regarding liquidity risks, net debt, which stands at 50% of GDP, may be a more accurate measure. Net debt is projected to decline to below 40% of GDP by 2023 in the baseline scenario and would not exceed 55% of GDP by 2023 in any of the scenarios considered. Still, if the central government were to experience payment difficulties, in the long run these could spread over into other parts of the public administration, including the social security administration, and lead into a negative feedback loop.

**Figure 9. Gross public debt is stabilising under several scenarios**




*Note:* In the baseline scenario, the primary deficit is as in government targets and the real exchange rate appreciates by an average of 3% per year over 2019-2023. Real GDP growth is as in Table 1 and 2.5% per annum thereafter. The currency composition of public debt is assumed constant. The slower fiscal adjustment scenario assumes 2% of GDP less fiscal adjustment each year over 2019-2023, with no changes in other variables. The higher nominal growth scenarios assume a combined increase in real GDP growth and inflation of 5 percentage points each year. The faster currency depreciation scenario assumes 20% higher increases in the ARS/USD exchange rate each year. The scenario with faster depreciation and higher interest rates assumes in addition 200 bps higher interest rates for both USD and ARS debt as of 2021, when market funding will become more important. The failure to adhere to reforms scenario assumes 2% of GDP slower fiscal adjustment each year, 2% lower growth due to a failure to implement structural reforms, in addition to faster depreciation and higher interest rates as of 2021 as in the scenarios above.
*Source*: OECD calculations.

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Monetary policy authorities decelerated the growth of the monetary base from 44% year-on-year in late September to a monthly growth of 0% as of October and committed to keep the monetary base almost constant until June 2019. This changes the target of monetary policy from targeting inflation to targeting the monetary base, at least temporarily, with a return to inflation targeting envisaged once inflation has come down visibly. With inflation at 51%, this new monetary policy will have a strong contractionary effect and currently results in a benchmark interest rate of 64%, down from a peak of 73% in October 2018. In conjunction with contractionary fiscal policy and public sector wage restraint, which could help guide collective bargaining in other sectors, the current policy stance is likely to achieve a significant reduction in inflation.

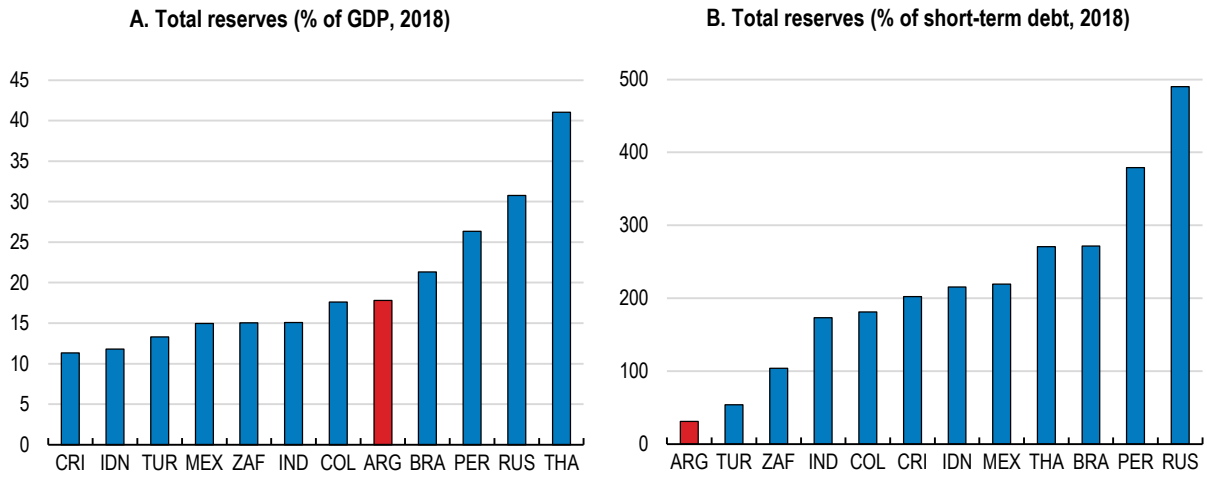
The new regime enhances transparency as changes in the monetary base are observable with short lags. At the same time, well-known drawbacks of monetary targeting have led several countries to abandon this regime in favour of inflation targeting in the past. Most notably, changes in the velocity of money, which measures the link between money and nominal incomes, can imply an unstable relationship between monetary aggregates and inflation. In the current high-inflation and high-volatility environment, this possibility could make monetary targeting less effective. At the same time, the effectiveness of the previous inflation targeting regime based on changes in interest rates suffered from a weak transmission, particularly in times of crisis when already low credit transaction volumes had dried up even further and the credibility of monetary policy had been questioned. In this context, money supply targeting is a reasonable temporary measure, but targets to reduce inflation are equally important.

A new framework that limits currency interventions to extreme volatility, as defined by instances where the exchange rate leaves a moving corridor, reflects the trade-off between keeping exchange rate volatility low to anchor expectations and the scarcity of currency reserves. If the ARS/USD exchange exceeds the corridor of +-15%, daily central bank interventions to strengthen the peso are limited to USD 150 million. At the same time, the Central Bank can purchase limited currency reserves without sterilisation if the exchange rate falls below the lower bound of the corridor. This would allow market-determined interest rates to come down.

Prior to September 2018, central bank interventions in currency markets had produced losses in reserves of USD 13 billion, but had only limited success in stabilising the currency. Currency reserves of 18% of GDP are mid-range in international comparison, but relative to short-term debt, reserves are much lower (Figure 10). This places severe limits on the potential scope for currency interventions. The new exchange rate regime strikes a reasonable balance between preserving a flexible exchange rate and limiting interventions on one hand, and legitimate concerns about extreme exchange rate volatility, which have strong effects on expectations in Argentina, on the other.

A number of institutional weaknesses in the monetary policy framework are being addressed. Authorities have committed to recapitalising the Central Bank to clearly defined levels of capital and future monetary financing will be limited to realised profits provided the Central Bank capitalisation is achieved. In addition, the Treasury will buy back non-transferable legacy treasury bonds held by the Central Bank (currently USD 32 billion). Changes to the charter of the Central Bank will strengthen its independence by defining clearly the circumstances and procedures by which members of the monetary policy committee can be dismissed and by focusing its mandate on price stability. These changes, however, are still pending implementation and the approval of Congress. Doing so will be crucial for bringing down inflation durably.

**Figure 10. Currency reserves are low in international comparison**




*Source*: IMF, CEIC, OECD Economic Outlook Database.

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## A recovery is expected to start as of 2019

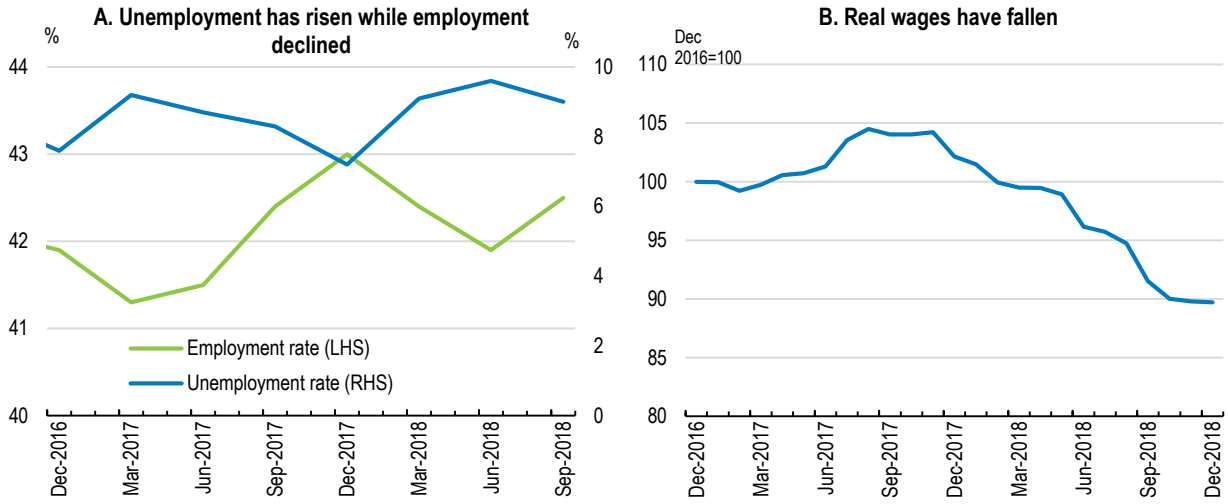
Against this difficult background, the economy fell into recession as of the second quarter of 2018 with domestic demand contracting sharply. A simultaneous decline in exports was due to a record drought that resulted in an exceptionally bad harvest.

Looking ahead, a number of forces will continue to constrain domestic demand. Confidence is recovering slowly from the turbulent events between March and September of 2018 and this will require visible improvements in both fiscal outcomes and inflation, in addition to a stabilisation of the exchange rate. Given the economy's high dollarization, the exchange rate is one of the most widely observed economic variables.

Both fiscal and monetary policies will have significant contractionary effects on growth according to OECD projections, until at least July 2019 for the case of monetary policy and well into 2020 for fiscal policy. Domestic interest rates, which are endogenous under the new monetary regime, will decline to the extent that demand for domestic-currency assets recovers, which itself is intimately linked to a more stable exchange rate.

Higher inflation curbed household consumption and affected particularly low-income earners. Unemployment rose and average real wages declined by 12% during the first 11 months of 2018 (Figure 11). This decline has been particularly pronounced in the two northern and relatively poorer regions of the country. Investment, which had been leading the expansion, contracted sharply in the context of increasing uncertainty, rising import prices and tighter financial conditions. Few investment projects will generate returns that exceed current local-currency interest rates and an easing of financing conditions will be key for the timing of the recovery.

**Figure 11. Labour market conditions have deteriorated**




*Note*: Real wages cover public and private formal and informal employment, deflated by CPI.
*Source*: INDEC, CEIC.

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Against this background, growth contracted sharply in 2018 and OECD projections do not expect a return of positive growth – on a quarter-on-quarter basis – before mid-2019, which implies negative growth for 2019 when comparing average annual GDP levels. Unemployment, which usually reacts with a lag, will rise until 2020 (Table 1). Using the fiscal space foreseen in the IMF agreement for spending more on well-targeted social benefits can mitigate the likely increase in poverty and this space should be used to the extent that poverty indicators deteriorate. As part of the crisis response, recipients of means-tested family allowances have already received extraordinary one-off payments and inflation adjustments.

Exports will lead the way out of the recession as of 2019, while domestic demand will take longer to recover given the tight monetary and fiscal policies. Several factors underpin projected improvements in export performance. For one, expert projections for agricultural production are promising due to expected favourable weather conditions (USDA, 2018[4]). The recently concluded wheat harvest was very strong and confirmed that picture. Currently, agricultural products account for around 40% of exports (Table 2). Assuming stable prices for agricultural exports, these volume projections would imply export growth of almost 16% for 2019 if they were to fully realise. At the same time, the more competitive real exchange rate is likely to spur non-agricultural exports as well. Non-primary exports have increased by 27% in volumes at annual rates during the second half of 2018. The new level of the exchange rate is the most competitive one that Argentina has had in 10 years (IERAL, 2018[5]). The current account deficit of currently 6% of GDP is projected to fall in 2019, with a further decline projected for 2020.

**Table 1. Macroeconomic indicators**

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| **GDP at market prices** | -2.5 | 2.7 | -1.8 | 2.9 | -2.5 | -1.5 | 2.3 |
| Private consumption | -4.4 | 3.5 | -1.4 | 1.2 | -2.1 | -4.1 | 2.1 |
| Government consumption | 2.9 | 6.8 | 0.3 | 2.2 | -3.5 | -4.9 | -2.6 |
| Gross fixed capital formation | -6.8 | 3.8 | -5.1 | 11.0 | -5.1 | -15.3 | 3.3 |
| Total domestic demand | -3.9 | 4.0 | -1.6 | 6.3 | -2.6 | -5.3 | 1.6 |
| Stockbuilding[1] | -0.3 | -1 | -0.5 | 1.8 | 0.1 | 0.4 | 0.0 |
| Exports | -7.0 | -0.6 | 3.7 | 0.4 | -2.0 | 15.0 | 7.9 |
| Imports | -11.5 | 5.7 | 5.4 | 15.0 | -2.5 | -4.7 | 4.2 |
| Net exports[1] | 0.7 | -0.9 | -0.3 | -2.0 | 0.1 | 3.0 | 0.9 |
| **Other indicators** | | | | | | | |
| CPI inflation[2] | 38.4 | 24.0 | 42.4 | 24.8 | 47.6 | 34.0 | 25.0 |
| Core inflation[3] | | | | 21.1 | 47.7 | 33.0 | 25.0 |
| Unemployment rate | ...[4] | … | 8.5 | 8.4 | 9.5 | 12.0 | 13.0 |
| Fiscal balance (per cent of GDP) | -4.0 | -5.6 | -5.8 | -5.9 | -5.2 | -3.2 | -1.7 |
| Primary balance (per cent of GDP) | … | -4.4 | -5.0 | -3.8 | -2.4 | 0.0 | 1.0 |
| Public sector debt (gross, per cent of GDP) | | | 55.0 | 57.6 | 76.1 | 74.1 | 71.2 |
| Current account balance (per cent of GDP) | -1.5 | -2.7 | -2.8 | -5.6 | -5.2 | -1.2 | -0.6 |

1. Contribution to changes in real GDP.
2. Before 2017, for Greater Buenos Aires only. End-of-period, December-on-December changes.
3. End-of-period, December-on-December changes.
4. Not comparable with later data.

*Source*: OECD projections, OECD Economic Outlook Database, INDEC, Central Bank.

**Table 2. The structure of exports and imports**

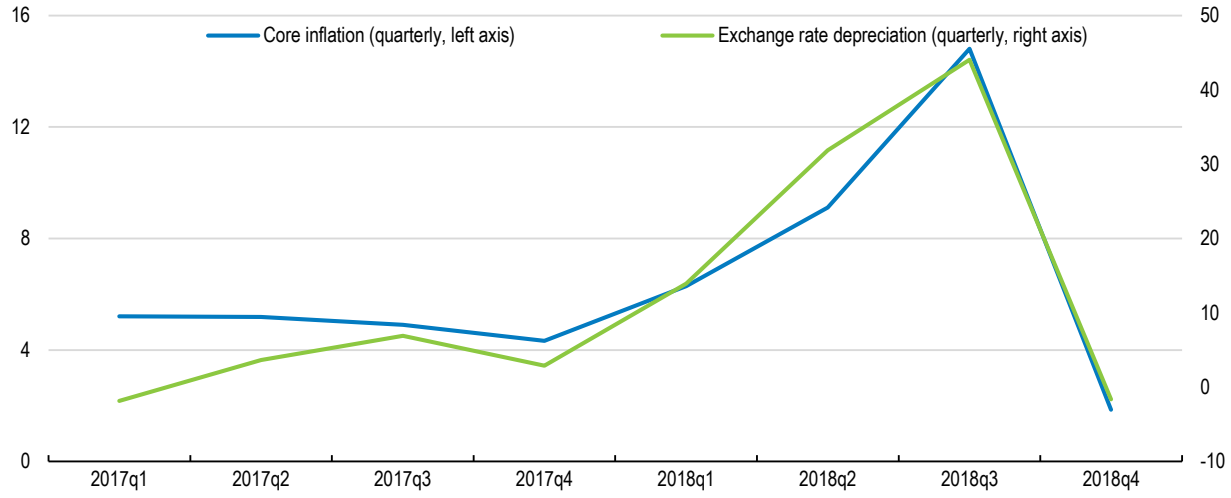
10 main exported and imported goods in 2017 (in % of total exports and total imports, respectively)

| Exports (in % of total exports) | | Imports (in % of total imports) | |
|---|---|---|---|
| Soybean meal | 15.6 | Motor cars and other motor vehicles | 9.4 |
| Corn | 6.7 | Parts and accessories for motor vehicles | 4.2 |
| Soybean oil | 6.4 | Electrical apparatus for line telephony or line telegraphy | 3.4 |
| Motor vehicles for the transport of goods | 5.6 | Petroleum gases and other gaseous hydrocarbons | 3.3 |
| Soybeans | 4.7 | Motor vehicles for the transport of goods | 3.1 |
| Wheat | 4.0 | Petroleum oils, other than crude petroleum | 3.0 |
| Gold | 3.9 | Automatic data processing machines and parts thereof | 2.0 |
| Motor cars and other motor vehicles | 2.6 | Medicaments | 1.9 |
| Prepared binders for foundry moulds or cores | 2.2 | Parts for machinery | 1.9 |
| Crustaceans | 2.1 | Other aircraft (for example, helicopters, aeroplanes); spacecraft | 1.6 |

*Source*: OECD calculations based on WITS data.

Inflation will be determined by developments in exchange rate, administrative prices and macroeconomic policies. Recent data reveal a strong and almost simultaneous correlation between exchange rate depreciation and core inflation (Figure 12). The exchange rate has stabilised since September 2018 and most of the direct inflation effects of depreciation in 2018 have now tapered out.

**Figure 12. Exchange rate depreciation and core inflation are visibly correlated**




*Source*: Central Bank.

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Pressures from administrative prices related to the continued subsidy withdrawal will recede temporarily as of November 2018, but new subsidy reductions are planned for the first half of 2019. The adjustments in relative prices have already come a long way. The government's medium-term objective to achieve 90% cost coverage implies that subsidies will need to be reduced by another 0.7% of GDP during 2019. The remaining 10% difference between revenues and costs, approximately 0.4% of GDP, reflect recently introduced targeted social energy tariffs for low-income households and transport subsidies for those who commute from the periphery to city centres combining several means of transport.

Contractionary macroeconomic policies are projected to reduce inflation visibly during 2019. Given year-on-year inflation of 51% in February 2019, however, the decline will be gradual and Argentina will have to live with high inflation for some time. Empirical analysis suggests that about 90% of current monthly inflation is determined by inertia, after controlling for changes in policies and the exchange rate. This limits the possible slope of disinflation, even with tight policies.

### *Risks around the recovery remain in place*

If the current projections materialise, the adjustment will leave the economy with more solid macroeconomic fundamentals and reduced vulnerabilities (Table 3). This will translate into a recovery of confidence and a significant growth pickup as of mid-2019. The adjustment is subject to risks, however.

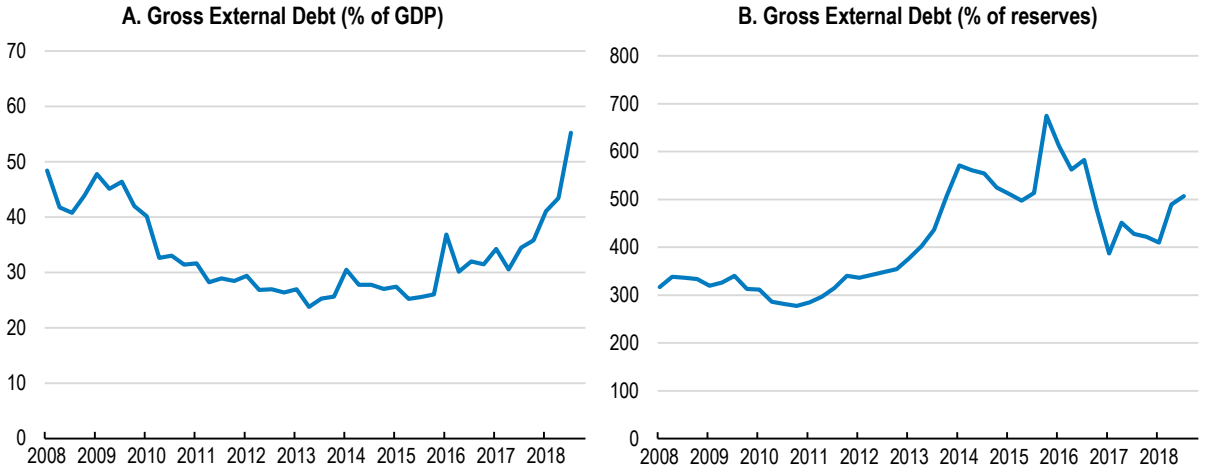
Domestic demand could contract more than projected against the background of simultaneous fiscal and monetary tightening. The demand effects of the planned monetary contraction, in particular, are difficult to quantify at this point. In the case of a deeper and more prolonged recession, higher unemployment and a deterioration of social indicators could undermine political support for the adjustment and add to political risks.

Political risks around the implementation and adherence to the reform agenda, and hence around the recovery from the current recession, exist in light of the 2019 presidential

elections. Indeed, future surprises will be more likely to come from politics than from the economy. While less ambition on structural reforms would lead to lower growth, possible fiscal slippage could cause sudden confidence losses, with possible spill-over effects beyond Argentina, including lower risk appetite for emerging market assets among global investors. Fiscal slippage could also lead to higher risk premiums and unsustainable debt dynamics. IMF financing will cover the bulk of financing needs until 2020, mitigating liquidity risks in the short term.

A return of exchange rate volatility would likely dent confidence and lower the demand for peso assets, which would in turn imply that domestic interest rates would stay high for longer, delaying the recovery of investment and consumption. Faster depreciation would also raise the risk profile of public debt, as over 70% of public debt is denominated in foreign currency. It would also raise external debt, which currently amounts to 55% of GDP, almost 5 times higher than currency reserves (Figure 13). At the same time, a period of renewed real appreciation of the currency could erode parts of the competitiveness gains resulting from the recent depreciation of the currency.

**Figure 13. External debt has risen**

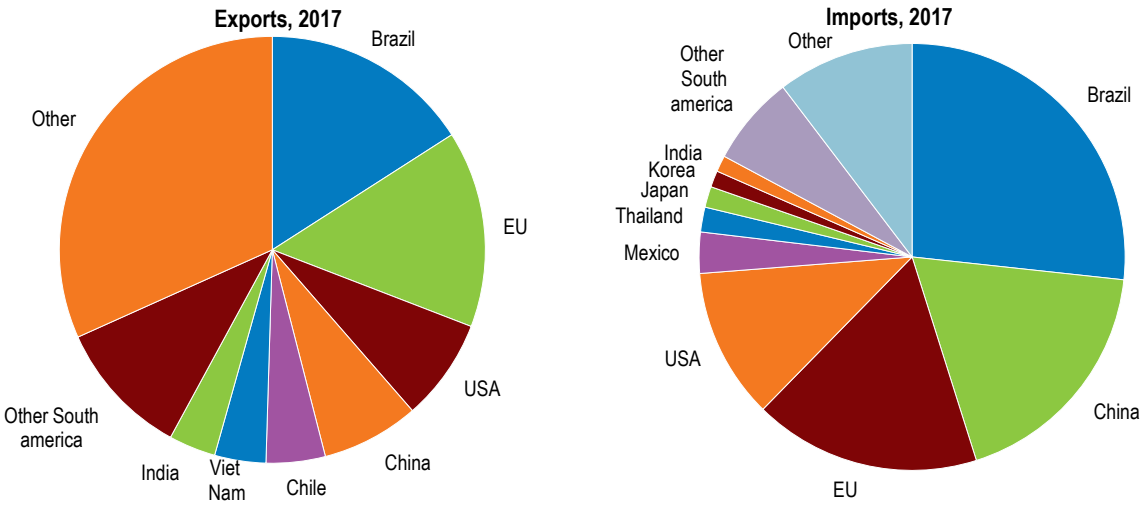



*Source*: IMF, CEIC.

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The size of the export response is a potential upside risk, in light of uncertainty about the rebound of agricultural yields and the response of other exports to the more competitive real exchange rate. In the medium run, improvements in export performance could be significantly higher still if authorities seize the opportunity of the newly gained competitiveness to lower trade barriers (see Chapter 1). At the same time, increasingly sluggish world trade growth or a derailed recovery in Brazil, Argentina's major trading partner, could lead to lower export demand (Figure 14).

**Figure 14. Main trading partners**



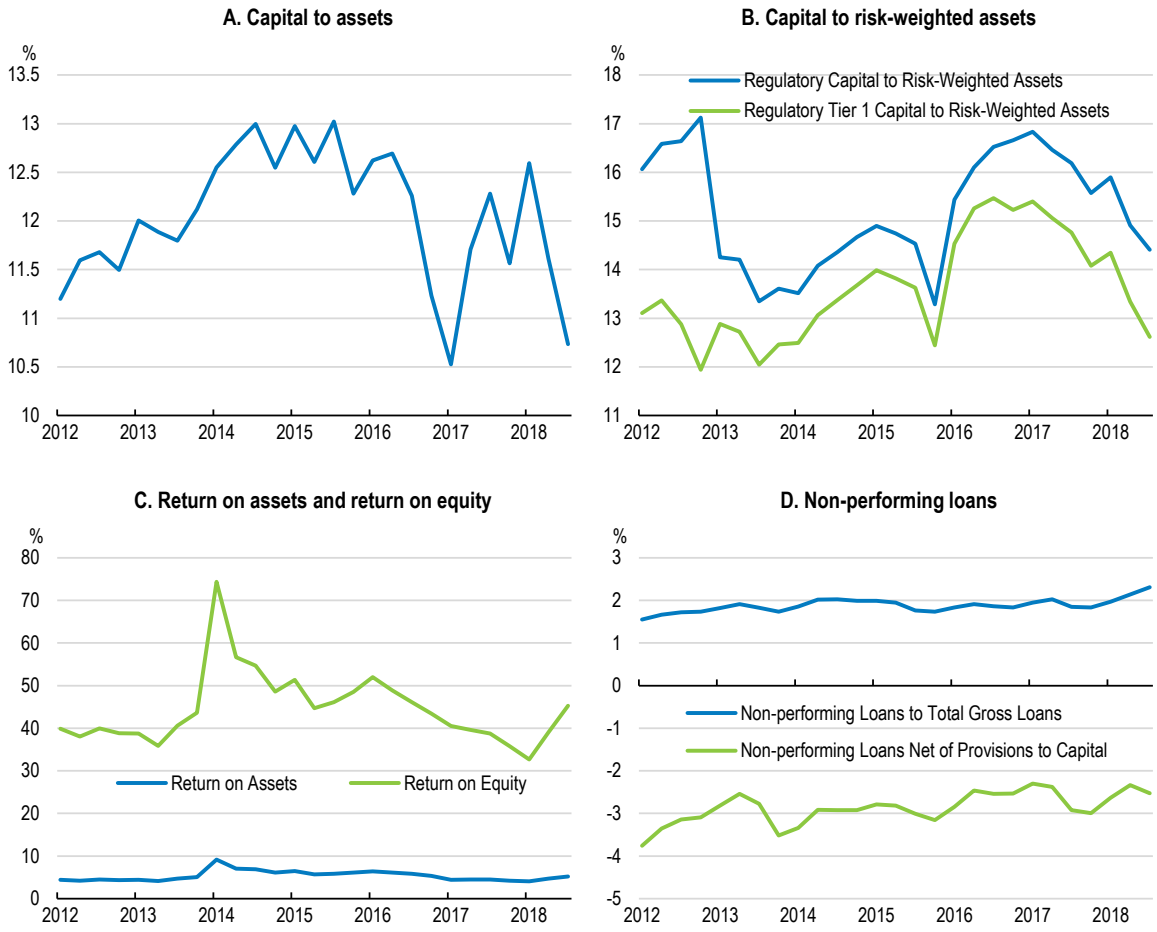

*Source*: OECD calculations based on WITS data.

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Risks to the decline of inflation risks could come from possible difficulties in keeping nominal wage growth in collective bargaining agreements in line with likely future inflation, as opposed to past inflation. Finally, in the run-up to the October 2019 elections, political risks include a lower commitment to honouring obligations vis-à-vis international creditors, which could lead into a severe crisis. Recent revelations of widespread corruption during the previous administration could delay the implementation of infrastructure projects. Construction companies that are involved in these revelations may become ineligible for public works or as partners in public-private partnerships, which would reduce investment.

Risks could also emanate from the financial sector. The authorities consider that most banks are solid and can withstand substantial levels of stress, reflecting large capital and liquidity buffers, as well as the quality of their assets (Figure 15; BCRA, 2018). 61 out of Argentina's 77 banks exceed the 6% Tier 1 capital ratio recommended under Basel III. At the same time, capital ratios have only limited predictive power for banking distress. Based on available information, banks are profitable and 3.1% of loans to the private sector are non-performing. Currency mismatches exist, but due to strict regulations, only 22% of bank liabilities are denominated in foreign currency. Foreign currency loans to the private sector, which are only extended to exporters and their suppliers, amount to only 13% of bank assets, or 29% of credit to the private sector.

**Figure 15. Financial market indicators**




*Source*: Central Bank, IMF.

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**Table 3. Potential major vulnerabilities**

| Uncertainty | Possible outcome |
|---|---|
| Failure to adhere to fiscal commitments | In the case that a future government decided not to honour fiscal commitments with the IMF, further IMF financing could be withdrawn and Argentina could lose market access, triggering an immediate liquidity crunch. |
| Another round of sudden exchange rate depreciation | Strong depreciation would create challenges for the sustainability of public debt. It would also cause another spike in inflation and reduce confidence. This would throw the economy back into recession. |

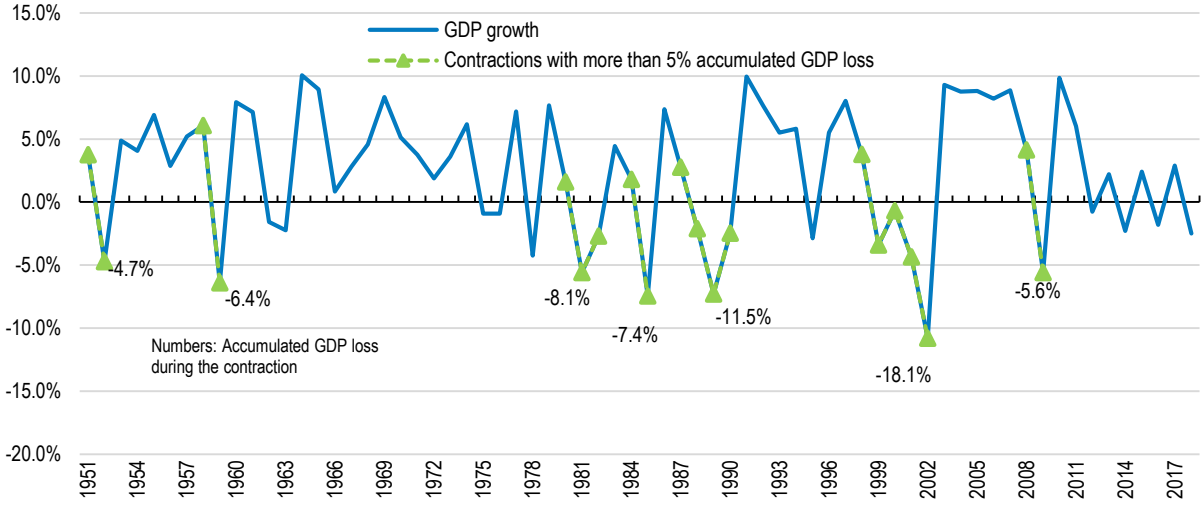
## Medium-term priorities for strengthening inclusive and sustainable growth

Recovery from the crisis is the most urgent priority in the short term, but raising well-being and prosperity also requires tackling a number of more medium-term challenges. Meeting these challenges calls for evidence-based policy design, but also for getting the sequencing of reforms right.

Finding a stable and sustainable path out of the crisis is closely related to some of Argentina's structural challenges. Consecutive boom and bust cycles, often sparked by

unsustainable fiscal expansions, have favoured short-term fixes over the pursuit of long-term development strategies, impeded the development of financial markets and led to high degrees of dollarization. A lack of consensus for solving structural weaknesses have left no other way to correct past excesses than through recurrent crises and sharp contractions, whose burden has typically fallen disproportionately on the most vulnerable (Figure 16).

**Figure 16. Growth has been volatile**



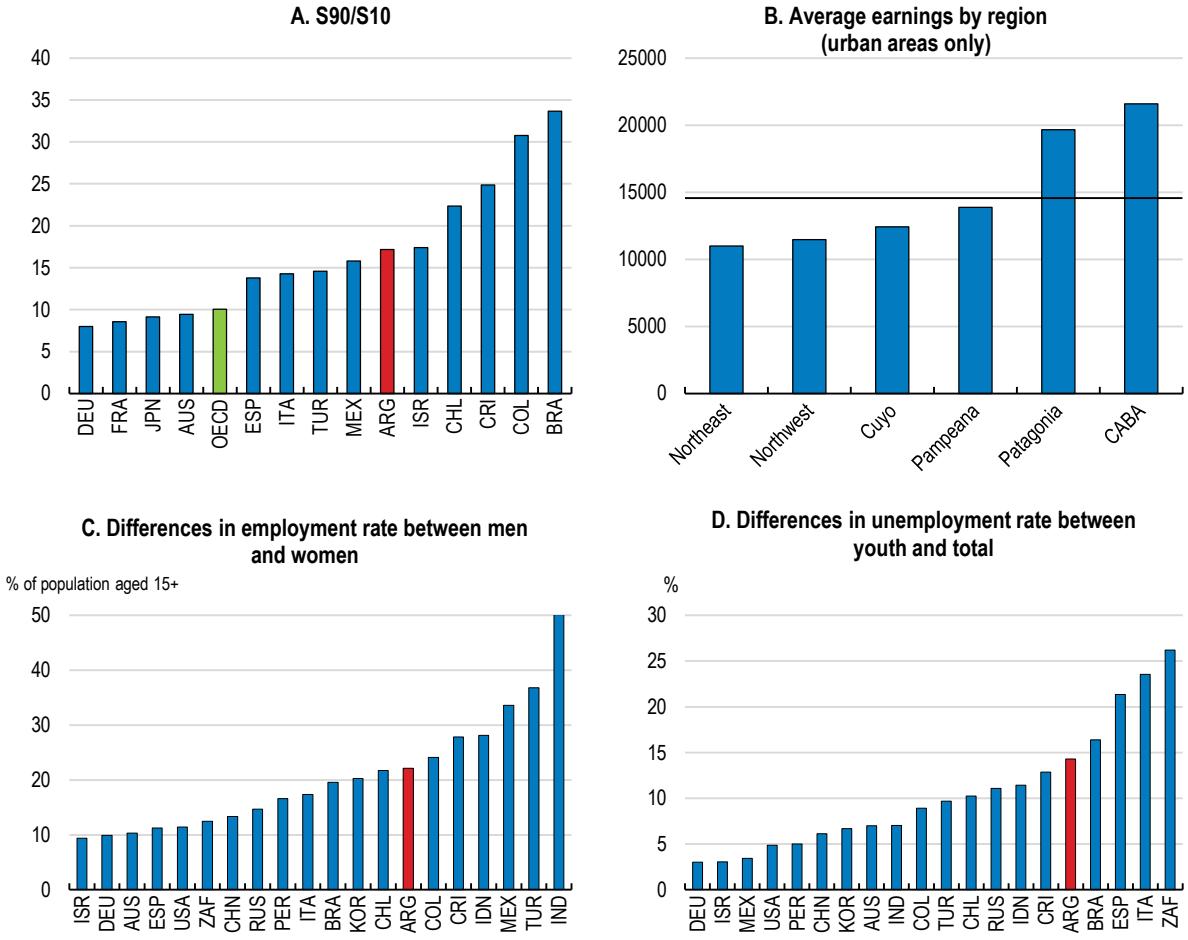

*Source*: Kidyba, S. and L. Suárez (2017). "Aplicación de índices encadenados al empalme de series. Argentina 1950 – 2015." *Programa de investigación en cuentas nacionales (PICNA)* – FCE – UBA; OECD calculations.

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Building the foundations for a period of growth without any major crisis is a precondition for raising average living standards. Productivity improvements will play a key role in this context, as Argentina's productivity performance has been weak over the last 20 years (Baumann Fonay and Cohan, 2018[6]). Improvements in productivity are the basis for creating quality jobs and for sustainable improvements in wages and living conditions. But raising productivity is also about expanding the productive assets of an economy by investing in the skills of its people, allowing everyone to contribute to stronger productivity growth and ensuring that it benefits all part of society (OECD, 2018[7]).

Slow productivity growth and economic instability gave rise to high inequalities. The richest 10% of the population pocket 17 times more income than the poorest 10%, although this is still lower than in other Latin American countries (Figure 17). By contrast, regional income disparities are higher than elsewhere in the region (Gennaioli et al., 2014[8]). Strong links between socio-economic background and outcomes in education and health suggest a lack of equal opportunities.

**Figure 17. Inequalities exist in several dimensions**




*Note: CABA = City of Buenos Aires. Youth unemployment applies to ages 15-24. Data refer to 2017 or latest available year.*
*Source*: World Bank WDI; ILO, INDEC (EPH 2017).

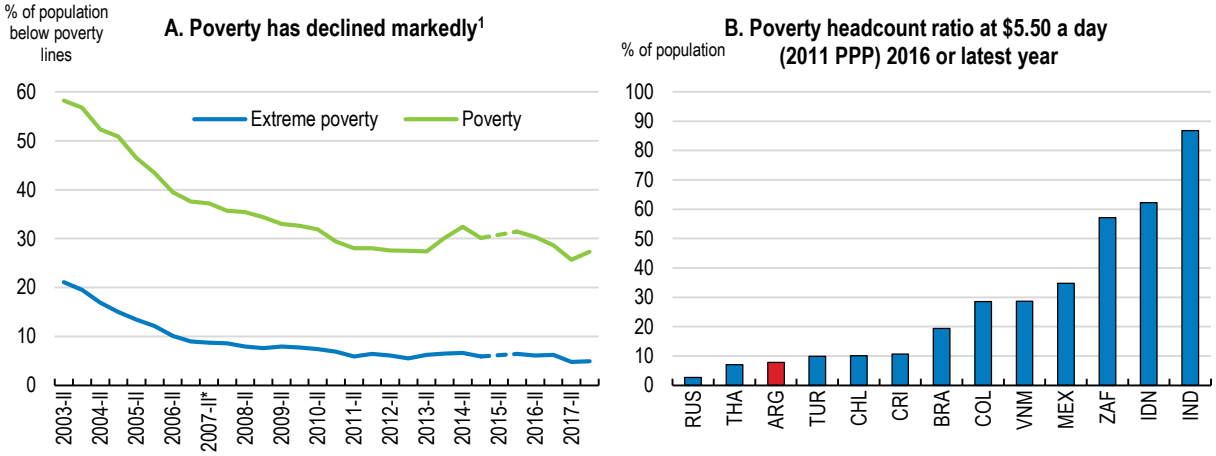
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Women are underrepresented in high-level positions in a number of sectors, including the justice system and the private sector. Women and youths do less well on labour markets, mother and child mortalities in poorer provinces are a multiple of those in the capital. Moreover, women often take the responsibility for unpaid care work within the family. Regional differences in social services and the infrastructure for the care of children and older persons imply that gender inequalities and women's difficulties in accessing formal employment are often more pronounced in lagging regions and rural areas, especially for lower-income women. Strengthening and expanding a comprehensive public care system to attenuate social and geographical divides and stronger policy action towards reconciling work and family life for both women and men could help. Women are also victims of violence and face difficulties accessing reproductive services. There may also be scope for implementing measures, including temporary ones, to combat social stereotypes that are detrimental to women.

Indigenous people are almost twice as likely to live in slum-like areas than others and face obstacles in accessing justice, land, education, health care and basic services. Finally, there may be scope to strengthen the position of migrants, especially with respect to their access to social services.

Around 27% of Argentinians live in poverty and 5% in extreme poverty, although it is half the level prevailing after the last major crisis in the early 2000s (Figure 18). This declining trend continued during 2016 and 2017, until the recession raised poverty again during 2018. Persistent pockets of poverty are unevenly distributed across the territory, with concentrations in the Greater Buenos Aires area and the northern provinces.

**Figure 18. Poverty has declined and is lower than in other emerging economies**

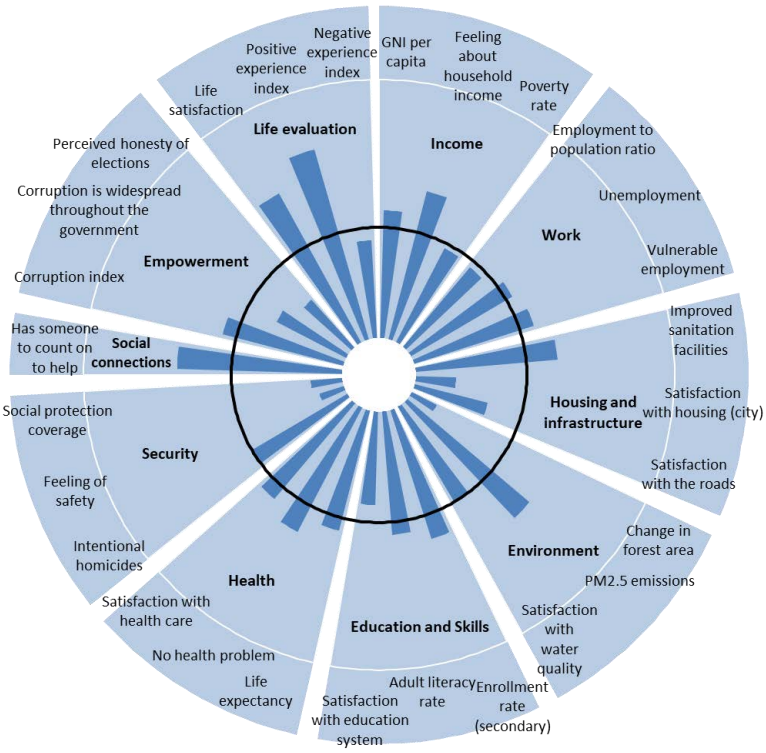



1. Data are representative for urban centres of more than 100 000 inhabitants. The pre-2016 series attempts to emulate the current methodology used by INDEC for comparability. Data for the second half of 2015 are not available.
*Source*: Tornarolli (2018), INDEC.

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While well-being indicators show relatively good performance in social connections, life evaluation and health, scores are worse in social protection, safety, housing infrastructure and the perceived prevalence of corruption (Figure 19).

**Figure 19. Well-being indicators**




*Note:* The bars represent the observed well-being values for Argentina and the black circle shows the expected values based on Argentina's level of GDP per capita, based on regression analysis. The observed values falling inside the black circle indicate areas where Argentina performs poorly in terms of what might be expected from a country with a similar level of GDP per capita.
*Source*: OECD (2015), PISA Database, www.oecd.org/pisa/data/2015; Transparency International (2016), 2016 Corruption Perceptions Index, www.transparency.org/cpi2016; Gallup (2017), Gallup World Poll, www.gallup.com/services/170945/world-poll.aspx; and World Bank (2017), World Development Indicators (database), https://data.worldbank.org/data-catalog/world-development-indicators. OECD calculations based on OECD Better Life Index – 2017 Edition, www.oecdbetterlifeindex.org.

## *Past and new structural reforms could have substantial pay-offs*

Important steps have already been taken to build a sustainable framework of economic policies, within which new growth opportunities for all can be seized, while protecting those at risk of falling behind (Box 3). OECD estimates suggest that reforms undertaken since early 2016 will raise GDP by almost 7 percentage points of GDP over a decade, equivalent to 0.7 percentage points higher growth each year.

Still, further improvements in structural policy settings will have substantial payoffs for well-being, jobs and prosperity. Long-run GDP effects from further structural reform could be as high as 20% over 10 years, corresponding to an average higher annual GDP growth of 2 percentage points (Table 4). This would have a substantial impact on incomes, but many of these reforms would also make growth more inclusive.

Reducing high barriers to international trade and to entrepreneurship, for example, would raise growth and bring substantial benefits to low-income households (Chapter 1). Reforms on the labour market would help to create better quality jobs and enable many workers who are currently in informal jobs to get formal employment. Improving the working of the public sector could also improve the equality of opportunities, for which

stronger institutions are crucial. Several other policy areas could also benefit from reforms, even if the resulting growth effects are not always easy to quantify. For example, improving public spending, taxes and the fiscal framework could deliver better public services, reduce distortions and free up resources to boost social protection, which is particularly important in the current difficult times. Moreover, the commitment to future generations calls for a sustainable use of Argentina's rich natural resources.

**Table 4. Expected gains from past and new structural reform are substantial**

Estimated impact of selected reforms on real GDP

| Reform | Effect of reforms implemented since 2016 | Additional benefit of further reforms |
|---|---|---|
| Reforms on product markets: | | |
| Lower trade barriers (e.g. by reducing tariffs and non-tariff barriers) | 2.6% | 13% |
| Reduce barriers to entrepreneurship (e.g. by cutting administrative burdens and limiting anti-competitive effects of regulation) | 2.6% | 5.3% |
| Labour Market Reform | - | 0.5% |
| Reduce corruption (e.g. by improving procurement laws and whistle-blower procedures) | 0.8% | 1.0% |
| Improve government effectiveness (e.g. by undertaking systematic audits and evaluations) | 0.6% | 0.5% |
| All of the above | 6.6% | 20.3% |
| Corresponding to an average annual growth increase of: | **0.7 percentage points** | **2.0 percentage points** |

*Note*: These estimates were obtained on the basis of: i) a numerical indicator of Argentina's policy stance in each policy area, taken from OECD/World Bank Product Market Regulation indicators, World Bank's World Governance Indicators, Doing Business and World Development indicators; ii) a simulated policy shock to the indicator, defined as moving Argentina to the average of the three regional peers Chile, Colombia and Mexico; iii) the quantification framework developed in Égert, 2017[9], which provides an estimate of the impact of changes in the indicator on long-term output growth with a time horizon of 10 years. These quantifications are subject to uncertainty, both about their size and about the time horizon of their materialisation.
*Source*: OECD calculations.

**Box 3. Recent and ongoing reform initiatives**

**Since late 2015, the following reforms have been implemented:**

- Currency controls have been abolished and an agreement with holdout creditors from the 2001 debt default restored access to market financing.
- A cumbersome system of import licensing was replaced by a new system and the number of goods subject to non-automatic licensing reduced. Tariffs have been zeroed for a few select products including notebook and tablet computers.
- National statistics have been overhauled.
- Large and untargeted subsidies for energy and transport are being phased out gradually, while maintaining some targeted benefits for low-income users.
- Social benefits have been expanded, including to the self-employed.

**Since the mid-term elections in October 2017, further reforms have included:**

- A tax reform will gradually reduce some of the most distortive taxes, including the provincial turnover tax and the financial transaction tax. It has also reduced the tax wedge for low-income earner, reducing disincentives for formalisation.
- A new competition law has established a new competition authority with greater personal and financial independence.
- A new indexation mechanism for old-age pensions has improved the system's sustainability.
- A new law for Public-Private Partnerships (PPPs) and a new Capital Markets law have been passed.
- A new fiscal responsibility law has put limits on many central-government and subnational spending items and reduced budget uncertainty for the provinces.
- A Congressional Budget Office has been created.
- The authorities have committed to submitting a law to Congress to strengthen the independence of the Central Bank by barring monetary financing and defining clear conditions for the dismissal of senior Central Bank staff.

### *Public expenditures and taxes could be more effective*

Public spending has seen a sharp increase of 15 percentage points of GDP over more than a decade until 2016. Part of this extra spending has led to improvements in social protection, including additional spending on pensions and social benefits, but subsidies and rising public payroll expenditures account for large parts of this additional spending (Table 5). The sharp increase has generated scope for reducing public spending going forward, especially by raising the efficiency of public expenditure.

**Table 5. The Composition of public revenues and expenditures**

| % of GDP | 2016 | 2017 |
|---|---|---|
| **Fiscal balance** | **-5.8** | **-6.1** |
| Primary balance | -4.2 | -3.8 |
| Interest balance | -1.6 | -2.1 |
| **Expenditures (Central government only)** | **24.1** | **22.8** |
| Contributory pensions | 8.0 | 8.7 |
| Other social expenditures | 3.7 | 3.6 |
| Subsidies | 3.6 | 2.1 |
| Operative expenditures incl. wages and transfers to provinces | 6.7 | 6.3 |
| Public investment | 2.2 | 2.0 |
| **Revenues** | **30.8** | **30.3** |
| Personal income taxes | 2.1 | 2.2 |
| Corporate income taxes | 2.9 | 2.8 |
| Social security contributions | 6.8 | 6.9 |
| VAT | 7.1 | 7.3 |
| Provincial sales taxes | 3.9 | 4.0 |
| Specific excise taxes | 1.7 | 1.8 |
| Taxes on exports | 0.8 | 0.6 |
| Taxes on imports | 0.8 | 0.6 |
| Financial transaction taxes | 1.6 | 1.7 |
| Property taxes (federal and provincial) | 1.4 | 1.5 |
| Other taxes | 1.7 | 0.7 |

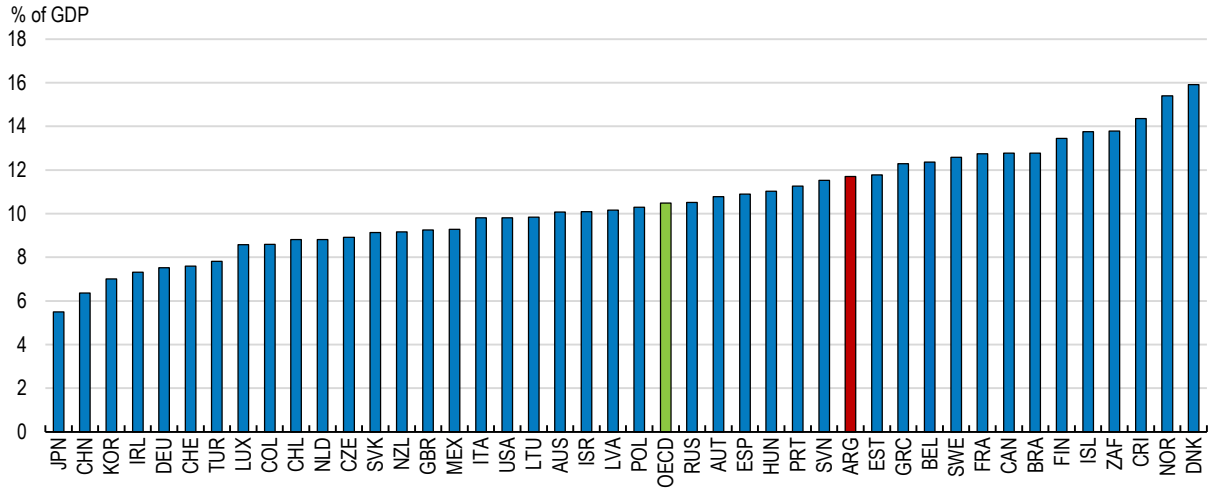
1. Contribution to changes in real GDP.
*Source*: OECD projections, OECD Economic Outlook Database, INDEC, Central Bank.

The size of the public administration is one such example. Public employment increased by 70% between 2001 and 2014, particularly at the provincial level, and at 11.7% of GDP public sector payroll was above the average of OECD countries in 2016 (Figure 1). Since 2017, public employment growth has been capped at population growth. This is a step in the right direction, but there may be scope for further action. Other current expenditures are also high and public procurement has had a poor track record in the past, as evidenced by recent revisions of previously inflated supplier contracts which allowed substantial savings. The acceleration of the fiscal adjustment includes a real wage and hiring freeze for civil servants and a 20% reduction of other current expenditures, both of which are welcome choices.

Significant progress has been made with respect to the state-owned enterprises sector, which are active in areas such as oil and gas, electricity generation, air and rail transportation, paper production, banking, shipyards, among others and have 125 000 employees. Recently, the sector has become deficit-free as a whole (OECD, 2018[9]). Still, phasing out remaining transfers to a few state-owned companies could allow further savings. The state should carefully evaluate and disclose the objectives that justify state ownership and subject these to a recurrent review. Authorities should also continue monitoring the implementation of financial and non-financial targets.

**Figure 20. Public payroll expenditures are high**

Compensation of general government employees as a percentage of GDP, 2016 or latest available year




*Source*: OECD Government at a glance (2017).

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Public investment, which was already insufficient to bring about timely improvements in widespread infrastructure bottlenecks, has been cut by 0.7% of GDP in the context of the new fiscal targets. Being easy to reduce, new public investment often bears a disproportionate share of the burden of fiscal adjustments. The authorities intend to finance much of the ambitious previous infrastructure plans through private-public partnerships (PPPs), for which a new framework law has been passed recently. PPPs can be a useful way to finance public investment in some cases, if risk-sharing is appropriately defined and the full budget implications over their whole life-cycle are properly accounted for in the medium-term budget framework. As per the agreement with the IMF, PPP expenditures will be measured as part of the deficit when the expenditures are made. The present value of all future contingent liabilities from PPPs, many of which are in foreign currency, has been capped at 7% of GDP.

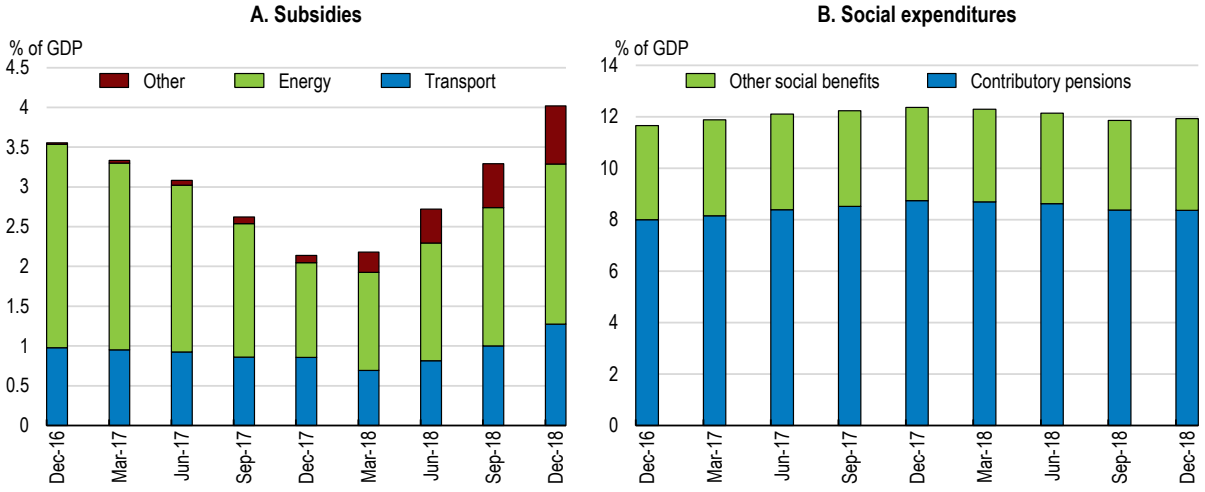
Subsidies for energy and transport reached 3.6% of GDP and are being phased out (Figure 21). Recent plans to accelerate the phasing out of energy subsidies are welcome as these subsidies have regressive distributional effects, besides discouraging energy efficiency (Castro and Barafani, 2015[1]; World Bank, 2015[10]; Lakner et al., 2016[11]). The main beneficiaries of subsidies on electricity and piped gas have been relatively well-off urban households in the capital region, as vulnerable households in less privileged areas are often not connected to the grid and rely on more expensive bottled gas.

Subsidies for public transport have a better social footprint, especially for trips between inner cities and suburban areas, home to many low-income households. Improving the targeting of these subsidies is still possible, however, especially since the introduction of electronic pre-paid travel cards. These have allowed reducing the combined fares for transfers between different means of transport during longer trips to the suburbs.

One argument for maintaining such targeted subsidies is their well-targeted social impact. Evidence from Bogotá, Colombia, suggests that targeted public transport subsidies for

poor households have increased hourly wages of workers benefiting from the subsidy, suggesting they increased their productivity by giving them access to better jobs and improving time management (ITF, 2017[12]). Targeted subsidies also make it easier to charge prices which cover full operating costs to other users, freeing resources for improvements in the service and helping to reduce pollution from car use. Policies to integrate housing and transport planning at the metropolitan level can also help to encourage public transport use. Developing location-based transport accessibility indicators is a useful first step in this direction (ITF, 2017[12]).

**Figure 21. Social expenditures are rising while subsidies have declined**



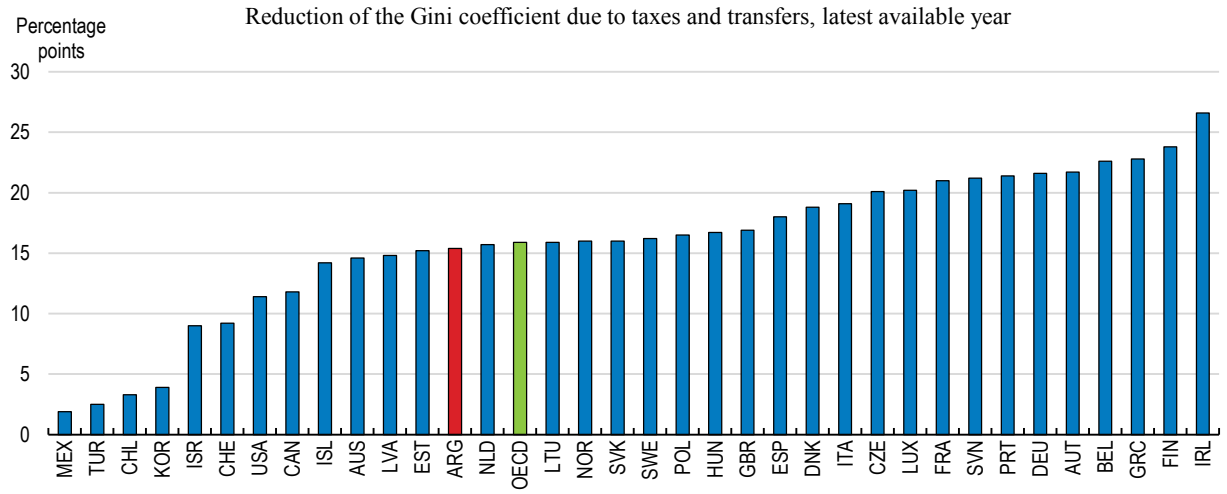

*Source*: Ministry of the Treasury.

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### *Social benefits have a significant effect on poverty and inequality*

Social spending is similar in size to that of some OECD countries and is being preserved in the context of fiscal consolidation (Figure 21). It is also successful in reducing income inequalities (Figure 22). Social policy will remain important to achieve more inclusive growth and cushion the current recession. However, given scarce resources, cost-effectiveness can be enhanced through a better coordination of the large number of policies and programmes offered by different levels of government and different ministries, for example through shared targeting instruments for multiple programs (World Bank, 2015[10]). The establishment of a single window for access to social benefits and the merger of some previous programmes have been steps into this direction.

**Figure 22. Transfers and taxes alleviate inequalities**




*Source*: Rossignolo and Arnold, 2019[13].

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A combination of contributory and non-contributory pensions reduces old-age poverty to below 10% of the age group. The almost universal pension coverage stands out in Latin America, but at almost 11% of GDP pension spending is also high. Pension spending exceeds the combined expenditure on health and education, while covering only 15% of the population.

Contributory pensions require 30 years of contributions and the retirement age is 65 years for men and 60 for women. A more gradual definition of the minimum threshold of 30 years of contribution for contributory pension benefits could reduce inequities and strengthen workers' incentives for formalisation. Non-contributory pensions of 80% of the regular minimum pension have a strong distributional impact and are granted solely on the condition of age for those without contributory pensions.

A pension deficit of 3% of GDP is covered from general taxation. This shortfall is likely to remain stable until the demographic bonus ends in the late 2030s. However, pension spending would surge to 21% of GDP by 2065 without parametric changes suggesting a need for a wider reform of the system in the medium run (Izquierdo, Pessino and Vuletin, 2018[13]). Recent policy changes have included the possibility to postpone retirement age to 70 and an adjustment to the benefit indexation formula from public revenues to inflation and wages, which have slightly improved long-run sustainability.

In light of demographic trends and the strong social spending bias towards the elderly, a political discussion about the future of the pension system will be inevitable to ensure the sustainability of the pension system. In the meantime, one way to rationalise pension spending while reducing inequities would be to align the more generous special regimes for some professions including teachers, judges, the military and legislators with the general regime.

The recently expanded conditional cash transfer scheme *Asignación Universal por Hijo* (AUH) reaches 4 million children, at a cost of 1.3% of GDP. The incidence of these well-targeted allowances is concentrated on the poorest 20% of the population, for which they

represent 40% of family income. Benefits per child are around 70% of the poverty line and have been raised recently in the context of the recession. The scheme also acts as a force against regional disparities, by providing the same level of benefits across the country. The benefits are conditional on health controls and school attendance.

These benefits have led to significant improvements with respect to attendance rates, intra-year dropout rates and primary school completion rates, with particular benefits for girls aged 12 to 17 (Edo et al., 2017[14]; Edo and Marchionni, 2018[15]). The large number of beneficiaries presents an opportunity for building up a unified and shared database of poor families, similar to Brazil's *cadastro único* or a similar instrument in Chile (Arnold and Jalles, 2014[16]). Shared tools and registries could improve coordination and targeting of different policy programmes, often administered by different ministries, and allow more effective social protection at lower costs (World Bank, 2015[17]). Recent plans to allow the social security administration access to tax data to determine eligibility for means-tested benefits and reduce overlap are a step into the right direction.

### *A recent tax reform is reducing distortions but more remains to be done*

Argentina's tax system remains fragmented and distortive. Lacking progressivity, it contributes little to the reduction of existing inequities. A tax reform decided in 2017 will reduce some existing distortions and lower the overall tax burden on businesses over a period of 5 years, to stimulate investment and formal employment.

For businesses, the reform focuses on reducing statutory corporate income tax rates while raising the taxation of distributed profits and on gradual phase-out of the most distortive taxes such as a provincial turnover tax. This tax has a cascading effect and creates an artificial incentive for vertical integration, as there is no deduction for the tax paid at earlier production stages (as there would be in a VAT). It hurts competitiveness and acts as an interprovincial tariff barrier, as different tax rates are applied depending on the domestic origin of goods. As part of the accelerated fiscal adjustment, the gradual phase-out schedule of this tax has been revised and partly postponed upon request from the provinces, for which this tax is a major source of revenues. In the medium run, it will be important to continue the process of phasing out the turnover tax.

Special promotional tax regimes for specific sectors and production locations, such as those benefiting the assembly of imported electronics parts in the remote province of Tierra del Fuego, should be subjected to thorough cost-benefit evaluations. The benchmark for potential benefits should be the existence of productivity improvements and the prospects for these activities to become sustainable without tax benefits in the future, not simply production increases. To the extent that some of the incentives provided by these regimes are simply exemptions from otherwise stringent import barriers, their effectiveness may be eroded anyhow in the context of a wider opening towards the global economy, which could bring about substantial benefits for Argentina (Chapter 1).

A financial transaction tax on every transaction in checking and saving accounts creates incentives to settle payments in cash, acting as a barrier for financial inclusion and formalisation. Plans to make this tax fully deductible from corporate income taxes have also been postponed in light of its significant revenues amounting to 1% of GDP. Looking ahead, the financial transaction tax should be abolished once the fiscal situation permits it.

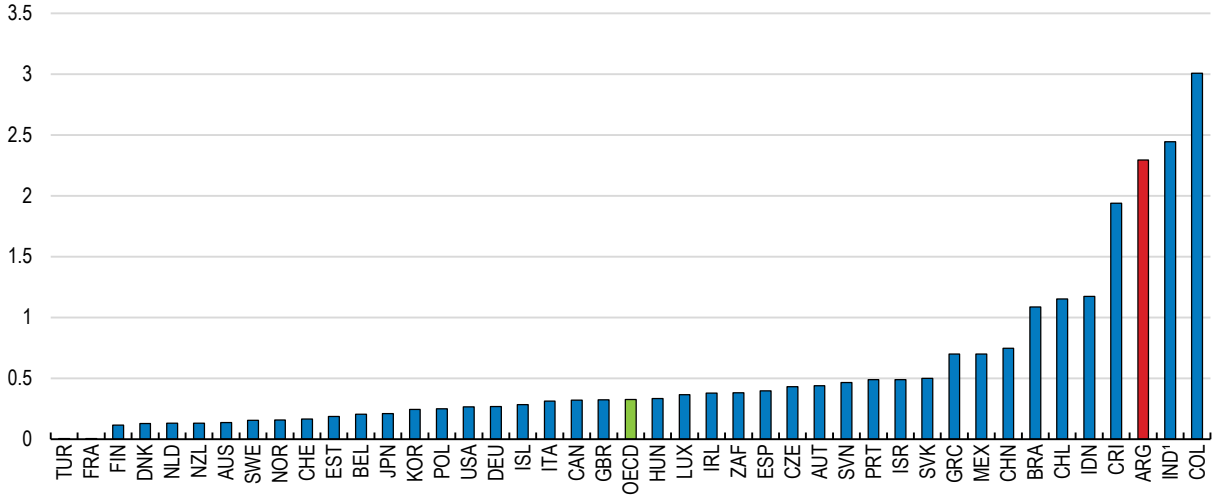
For personal income taxes, the tax reform did not reduce the high basic exemption of over 2.3 times the average income, below which personal income tax is not owed. As a result of this, only the top 15% of the economically active population pays personal income taxes (Figure 23). Lowering the thresholds while ensuring a progressive rate schedule would most likely raise more revenues in a more progressive way. Given how high the current threshold is, there is significant room for lowering it even without including workers with low incomes, who are affected by informality. The taxation of financial income of individuals, established in 2018, is likely to improve the progressivity of the personal income tax system.

Further base broadening could result from extending personal income taxes to judges and other employees of the judiciary branch, most of whose salaries are currently tax-exempt. This causes revenue losses of approximately 0.05% of GDP. A recent agreement subjected employees of the judiciary hired after 2017 to personal income taxes, but only for a small part of their salary. There is no compelling reason why specific occupations should be exempt from income taxation and this exemption is at odds with current practice in other countries, as well as with the widely accepted objective of seeking broad tax bases.

Moreover, a simplified tax system for independent workers and micro enterprises (*Monotributo*), whose main objective is to bring low-income earners into the formal sector, can also be used by individuals with higher incomes. As a result, the scheme generates low tax burdens for liberal professionals with medium or high incomes and exempts their services from VAT.

**Figure 23. Few people pay personal income tax**

Income threshold where single taxpayers start paying income tax, measured as a multiple of the average wage




*Note*: For India, the average worker income is for the organised manufacturing sector as reported in the Annual Survey of Industries.
*Source*: OECD calculations for Argentina, China, India, Indonesia and South Africa; and OECD Taxing Wages 2017 for the rest of the countries.

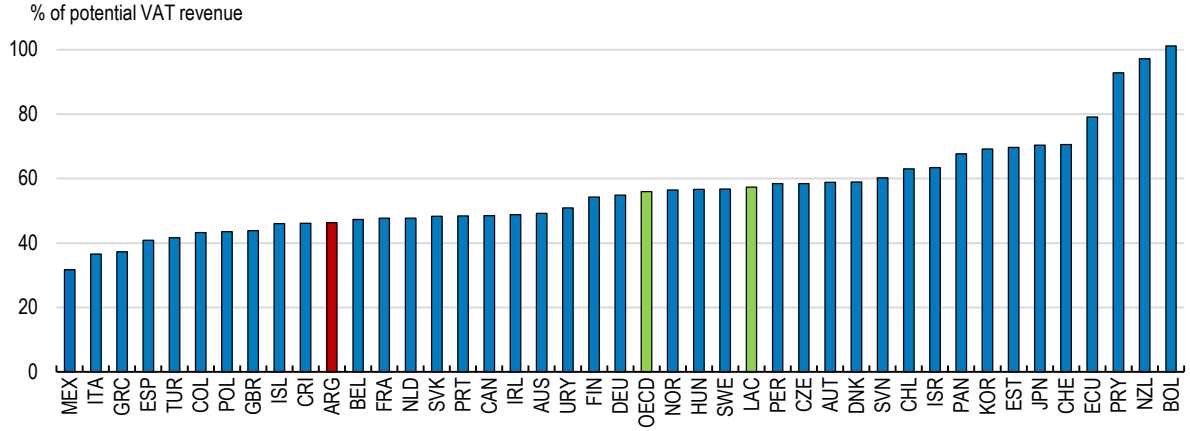
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Broadening the VAT base could be one source of revenues. The country's low VAT revenue ratio to potential suggests that Argentina collects only 46% of the potential VAT revenues of applying the standard rate to all consumption (Figure 24). This corresponds to around 3.5% of GDP. Exemptions and reduced rates account for almost 1% of GDP in lost revenues, while estimates suggest that the rest due to evasion (Artana et al., 2015[18]). Exempt goods like medicines, education and transportation are an important part of the consumption basket of low-income households, but these goods are also consumed by better-off households, who pocket the bulk of this tax expenditure. In fact, only the lower rate on food brings larger benefits to low-income households than to high-income households (Artana et al., 2015[18]). Simulations based on household data suggest that applying the current standard rate of 21% on all consumption would have limited distributional effects, which could be compensated through transfers to low-income households with significantly less resources than the revenue losses resulting from reduced rates (Artana et al., 2015[18]).

Improvements in VAT tax collection have been supported by promoting electronic invoicing, which will be mandatory for all taxpayers as of April 2019. Recent directives to make acceptance of debit cards mandatory can help to reduce cash transactions and the scope for VAT evasion.

**Figure 24. VAT revenues could be higher with stronger compliance and less use of reduced rates**

VAT Revenue Ratio, 2014




*Note*: The VAT revenue ratio (VRR) is defined as the ratio between the actual value-added tax (VAT) revenue collected and the revenue that would theoretically be raised if VAT was applied at the standard rate to all final consumption. The OECD aggregate is an unweighted average of data shown (excluding Latvia) and data for Canada cover federal VAT only.
*Source*: Calculations based on OECD (2016), OECD Tax Database, OECD Revenue Statistics and OECD National Accounts Statistics (databases), OECD Revenue Statistics for Latin American countries, 2016.

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**Table 6. Financial assessment of fiscal recommendations**

| Fiscal recommendation | Estimated impact on fiscal balance |
|---|---|
| Use the fiscal space agreed for this purpose to raise spending on well-targeted social transfers. | -0.2% of GDP |
| Align the conditions of special pension regimes for select professions with general pension rules. | 1% of GDP (for the near future, more later) |
| Broaden the VAT base by reducing exemptions and special rates. | 1% of GDP |
| Lower the basic deduction in personal income taxes. | 1% of GDP |
| Seek efficiency improvements in education, including by merging fragmented teacher training institutions. | Revenue-neutral. |
| Use the resulting savings to<br>- expand early childhood education.<br>- bolster adult training programmes. | Revenue-neutral. |
| Reduce tariffs and non-tariff barriers. | -0.6% of GDP for eliminating all tariffs. |

*Note:* The numbers in this table are estimates and some of them are subject to considerable uncertainty.

## *The fiscal framework has been improved*

Fiscal relations between the central government and the provinces have long been challenging. With most revenues collected at the central level, provinces have traditionally relied on transfers from the central government to provide key social services such as education and basic health-care. Much of these transfers have been discretionary and subject to political negotiations, often in return for provinces' votes in the Senate. This generated budget uncertainties and hampered medium-term policy planning at the provincial level, exacerbating regional inequalities. A 2017 law has significantly raised the share of automatic transfers, which should ease tensions between the central government and the provinces over the sharing of resources. This new fiscal pact was agreed in return for a provincial-level expenditure rule limiting the growth of most current primary expenditures to inflation and confirming the need for central government consent when provinces wish to issue debt. Compliance with provinces' expenditure rule is monitored by a special federal council.

The same law also mandates zero real growth for current primary expenditures at the federal level, excluding increases in pension expenditures due to automatic indexation of benefits. An expenditure rule is a useful tool to lock in the hard-earned benefits of improving fiscal balances because compliance can be judged against a simple observable target, expenditure, which is easy to calculate and explain to voters and markets. Since automatic stabilisers operate predominantly through the revenue side, an expenditure rule would not be very pro-cyclical. The experience with such a rule has been positive in Peru and the Netherlands, for example (Berganza, 2011[19]; Ayuso-i-Casals, 2012[20]). At the same time, the authorities could consider extending the rule to all federal level expenditures, given that all expenditures ultimately affect the development of public debt in the same way. In its current form, the rule is not sufficient to ensure the sustainability of public debt and is less stringent than short-term fiscal targets for 2019 and 2020.

A newly established independent congressional budget office has started to produce fiscal impact projections and cost-benefit analyses. Building on this progress by charging the budget office with regular ex-ante assessments of compliance with medium-term fiscal plans, and with a possible future fiscal rule, could enhance fiscal policy credibility. Almost all European Union countries have created an independent fiscal institution with this mandate by now. (Beetsma et al., 2018[21]; Hagemann, 2011[22]). In Latin America,

Brazil has recently created such an institution to improve the transparency of compliance with its new expenditure rule, and the institution is publishing high-quality reports on fiscal prospects and compliance with fiscal rules.

**Table 7. Past OECD recommendations on macroeconomic policies**

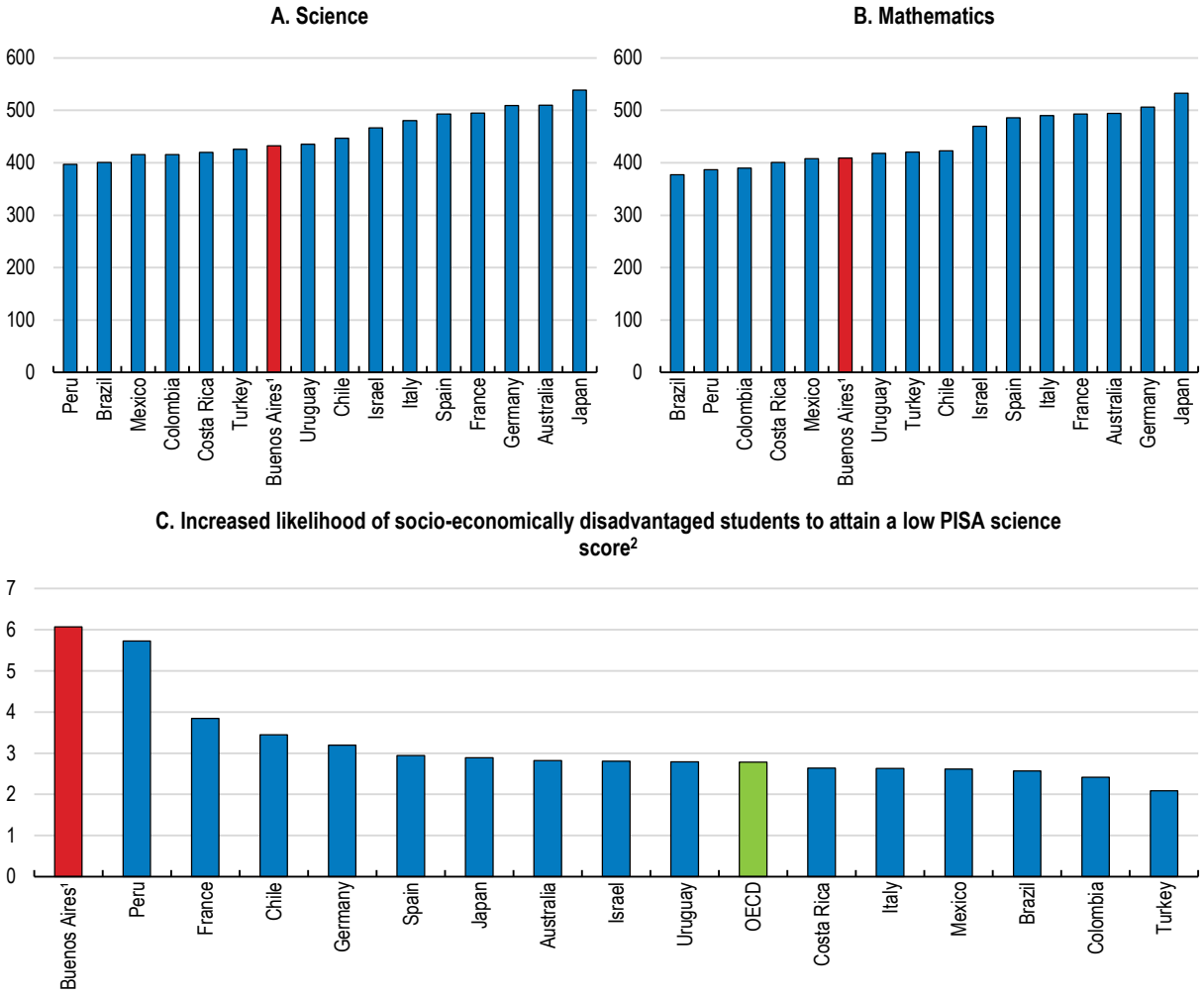
| Recommendations | Actions taken since the 2017 Survey |
|---|---|
| Ensure fiscal sustainability by continuing to pursue planned fiscal targets but allow temporary deviations in either direction from the targets if growth disappoints or surprises on the upside. | Fiscal results have improved and recently revised fiscal target aim at a significant acceleration of fiscal consolidation. |
| Phase out energy subsidies. | Energy subsidies are declining visibly. |
| Rationalise public employment, particularly in the provinces. | Public employment is falling. |
| Achieve further cost savings in state-owned enterprises and improve their governance. | The state-owned enterprise sector as a whole has become deficit free. |
| Undertake an expenditure review. | There has been no systematic across-the-board expenditure review. |
| Undertake a revenue-neutral tax reform, including | A tax reform reduced revenues by about 2% of GDP over two years. |
| - Lowering the income threshold where taxpayers start paying personal income taxes. | The income threshold for paying taxes has risen rather than declined. |
| - Phasing out the provincial turnover tax and financial transaction tax. | |
| - Broadening the base of value added taxes. | These taxes are being phased out. |
| - Introducing progressivity into social security contributions. | No progress made. |
| - Lowering social security contributions temporarily for low-paid workers whose jobs are brought into the formal sector. | Incomes below a threshold level have been exempted from social security contributions. |
| | This reduction has be implemented as part of the tax reform. In addition, some social benefits can be maintained as an employment subsidy for up to 2 years for workers whose jobs are brought into the formal sector. |
| Introduce an expenditure rule and consider implementing a debt target over time. | A new law mandates zero real growth of most current primary expenditures at the federal and provincial levels, but could be extended to all expenditures. |
| Use an independent fiscal council to assess compliance with the rules. | A congressional budget office has been created and the federal council for fiscal responsibility has been strengthened. |
| Limit dismissal of the Central Bank governor to severe misconduct. | No concrete action yet, but a commitment to implement a law covering these two issues. |
| Simplify the Central Bank's mandate, prioritising price stability. | |
| Strengthen the capacities and independence of bodies investigating corruption, reorganise and strengthen courts and enact the corporate liability bill to prosecute bribery. | The corporate liability bill has been enacted. |

### *The education system can do more to reduce inequalities*

At almost 6% of GDP, Argentina spends more than other countries on education (Figure 25). However, the return on this spending is comparatively weak. Low student achievements suggest challenges in the quality of education (Figure 26). Two-thirds of 15 year old students in the city of Buenos Aires do not have basic-level proficiency in reading, mathematics and science (OECD, 2016[23]). OECD PISA results are only available for the capital city of Buenos Aires, and students in major urban centres generally outperform the national average. Moreover, the education system exacerbates

inequalities as students from weak socio-economic backgrounds are 6 times more likely to have low educational attainment than others.

**Figure 25. Learning outcomes reflect quality shortcomings and inequalities**



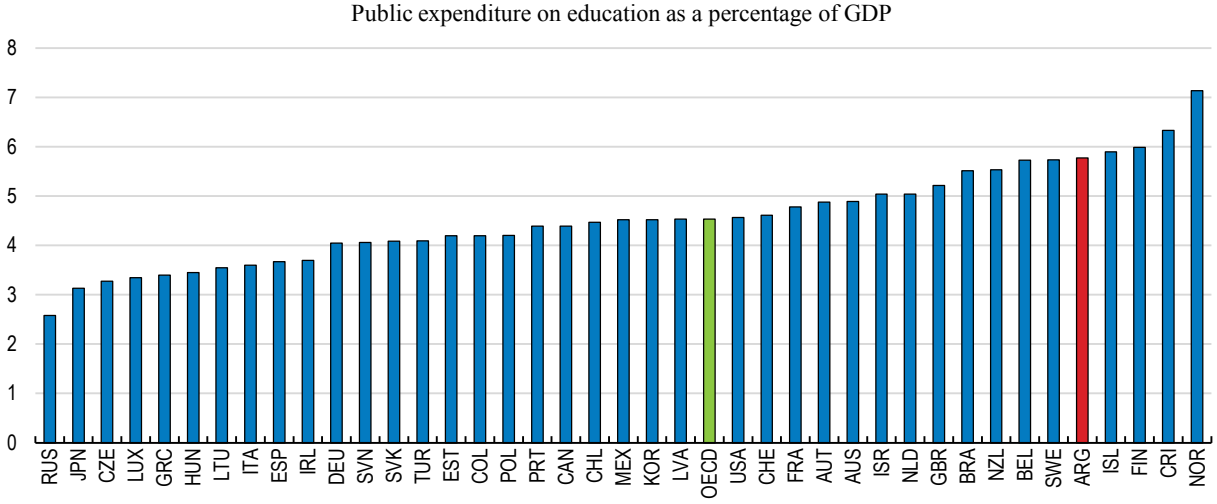

1. Data for Argentina refer to capital city of Buenos Aires only due to methodological shortcomings in the way the underlying tests were conducted in other provinces. They may therefore overestimate the national average.
2. A socio-economically disadvantaged student is a student in the bottom quarter of the distribution of the PISA index of economic, social and cultural status (ESCS) within his or her each country/economy. A low PISA score is defined as scoring below Level 2 in science.
*Source*: OECD, PISA 2015 Database.

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Educational attainments are above the OECD average in secondary education, but low and declining for tertiary education (Figure 27). Still, 40% of secondary students leave school without a degree. Dropping out often reflects students' failure to acquire essential skills during early childhood, exacerbated by frequent grade repetition later on. Grade repetition tends to be a costly practice with little discernible benefits on learning outcomes (Ikeda and García, 2014[24]). This could be addressed by further expanding

early childhood education, which tends to improve student competencies for years to come and adds more to reading outcomes than one additional year of formal schooling (OECD, 2012[25]). Boosting early education would offer a double dividend, as it would also facilitate greater female participation in the labour market. Coverage is only 43% for 3-year olds, compared to the OECD average of 76% (OECD, 2018[26]). In order to be effective, however, maintaining good quality and regular monitoring will be necessary.

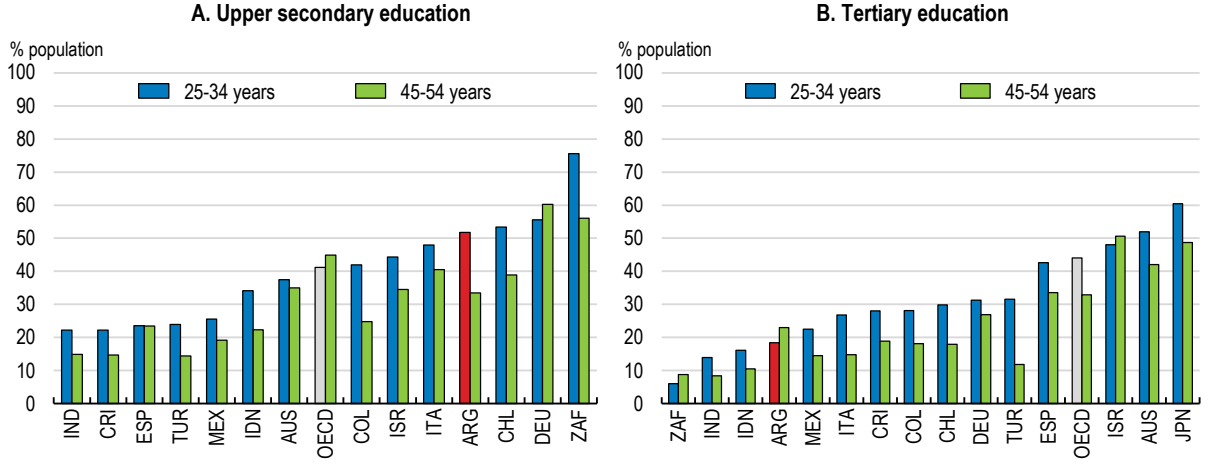
**Figure 26. Education expenditures are high**




*Source*: World Bank; and OECD Education at a glance.

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**Figure 27. Educational attainments compare well in secondary, but not in tertiary**



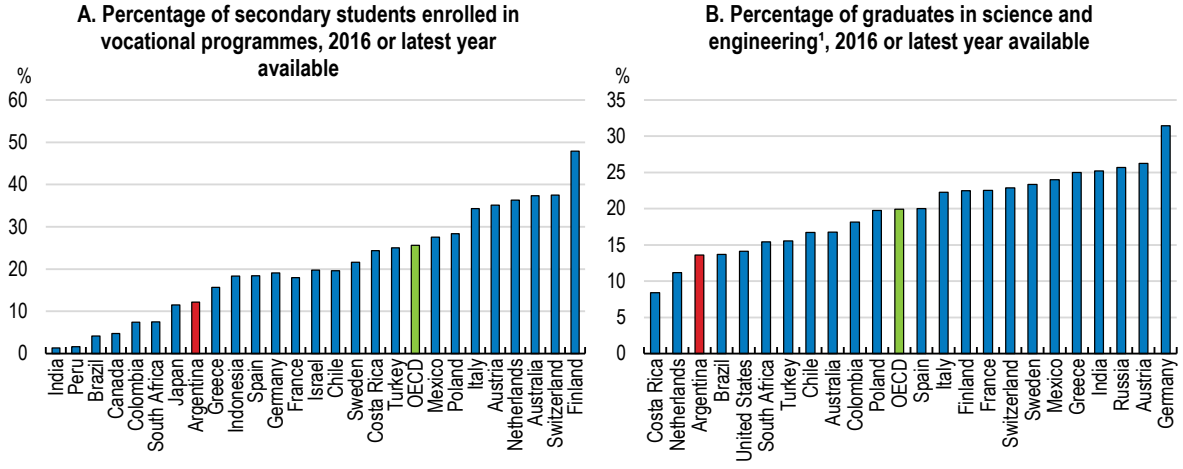

*Source*: OECD, Education at a Glance: OECD Indicators. INDEC (2016e) for Argentina.

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Improving teacher quality through better teacher training can improve learning outcomes while resulting in cost savings, thus strengthening spending efficiency in education. Argentina has over 1 000 teacher training institutions, often characterised by a lack of quality standards, no systematic evaluations and an insufficient scale. Merging some of them and professionalising their management could lead to significant savings and also improve the governance and low transparency in the use of public funds. In addition, teacher skill shortages could also be addressed by allowing university graduates to become teachers.

The opportunities for students to acquire vocational education and training and more technical degrees could be expanded (Figure 28, Panel A). More vocational training would also improve equity as it could provide labour-market relevant training opportunities to less academically-inclined students who are at risk of dropping out of the school system. Skill shortages for engineers and technical degrees reflect a tertiary education system that produces too few graduates in science, technology, engineering or mathematics (Figure 28, Panel B).

**Figure 28. Few students follow technical courses and careers**




1. This includes all the tertiary graduates in the fields of Engineering, Manufacturing, Construction, Natural Sciences, Mathematics and Statistics. Data refer to the latest available year.
*Source:* World Bank World Development Indicators database; OECD Education at a Glance database; and UNESCO Education database.

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## *Access to health care is unequal*

While access to health care is in principle meant to be universal, the health system is fragmented and characterised by inequities according to incomes, health insurance modalities and provinces. Maternal and child mortality can differ by as much as 8 times across different parts of the country. Non-communicable diseases have become a leading cause of death. Air pollution is also among three out of four leading causes of years of life lost (World Bank, 2016[27]). The system also faces sustainability issues as spending is expected to rise from currently 7.1% of GDP to 10.3% by 2065 as the population ages. (Izquierdo, Pessino and Vuletin, 2018[13])

The universal public health system provides basic health services. However, coverage is effectively not universal and severe challenges in access to health services remain in

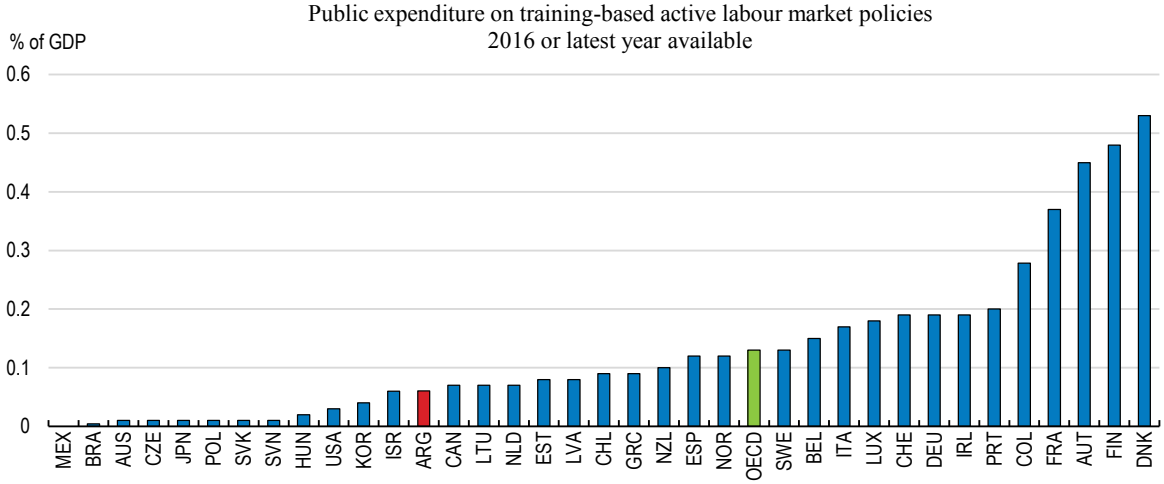
many areas. The public system is the only health coverage for 30% of the population. Service provision, including public hospitals, is the responsibility of the provinces and per capita expenditures vary substantially across regions. A further deterioration of health infrastructure in the context of the present fiscal adjustment should be avoided. A stronger focus on primary care could help to achieve efficiency improvements, as would centralised nationwide care manuals to guide treatment choice.

Around 60% of the population has additional cover through occupation-based health insurance schemes (*obras sociales*). These over 300 schemes are usually administered by trade unions and lack sufficient scale. Some have faced governance challenges, with evidence of funds being diverted from the provision of health services to other purposes. Some of them have frequently failed to cover included services. Recent measures require filing annual financial accounts with a public agency, which could be followed up by a systematic collection of quality indicators. Centralising purchasing could eliminate differences in prices paid and hence the scope for kick-backs. Ultimately the largest potential for cost savings and better health services, however, lies in merging these occupation-based schemes while professionalising their management. In light of quality issues with these schemes, around 10-15% of the population has subscribed to private-sector health plans to obtain better healthcare services.

### *Active labour market policies are weak*

Active labour market policies to equip working-age Argentinians with better skills are underdeveloped (Figure 29). Training policies may have a durable impact on employability and improve the beneficiaries' income-generating potential. Benefits can be significant especially to women (Bergemann and Van Den Berg, 2006[28]). The programmes will become more important as the economy continues its structural transformation and some workers will need to find new jobs in different firms or industries. Recently established cash transfers to adults who return to school or acquire professional training have been taken up by 260 000 adults and go in the right direction. After some time, an impact evaluation of this programme would be useful.

**Figure 29. Labour market training policies could be expanded**




*Source*: OECD Public expenditure and participant stocks on LMP database; ILO.

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### *Labour market duality contributes to informality*

One third of the workforce is precluded from the benefits of formal employment, including access to contributory pensions, sectoral health insurance schemes and protection against the income loss associated with unemployment. The low social protection for informal workers contrasts with comparatively rigid employment protection legislation in the formal labour market (Figure 30). Tackling informality will require a comprehensive strategy, including both stronger incentives for formal employment and stronger enforcement of existing requirements to declare workers and firms.

Incentives for declaring previously informal or for creating new formal jobs have enhanced by a 2017 programme called EMPALME that allows beneficiaries of social programmes to maintain their benefits when they find formal employment, while the employer can deduct the amount of the benefit from the wage bill. Effectively, this implies a conversion of social benefits into an employment subsidy over 24 months for those workers.

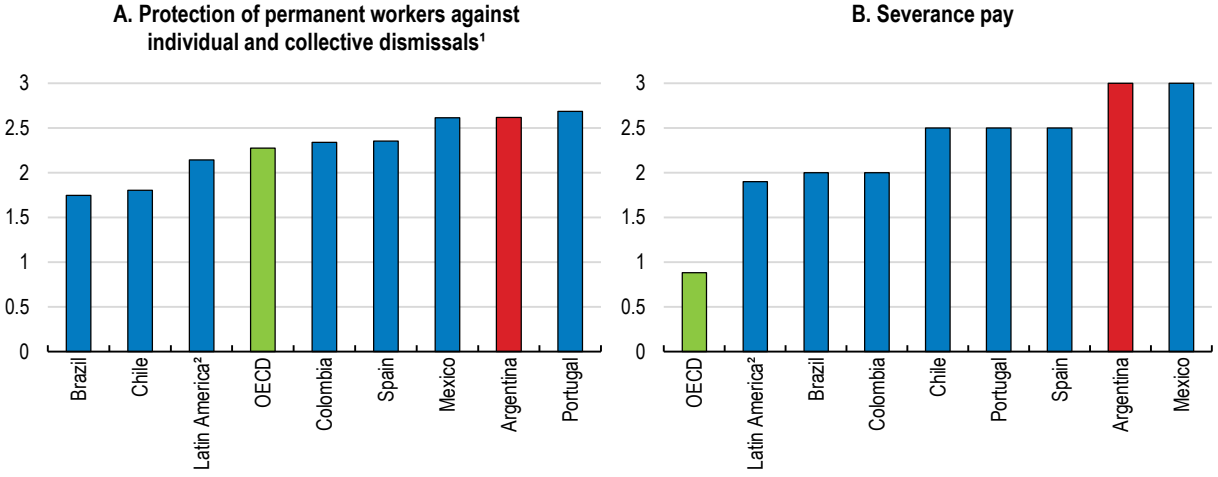
Reforms on labour markets play a key role. High levels of severance payments for individual dismissals, which often end in court, drive up costs and uncertainties related to formal hiring. In fact, empirical analysis suggests that firms facing more difficulties with labour regulations and competition from the informal sector have lower productivity (Chapter 1, Annex). This duality makes it difficult for some categories of workers, including women and youths, to enter formal employment and, in combination with other factors such as taxes and regulations, often leads entire enterprises to remain informal. OECD analysis based on a recent household survey suggest that informal workers earn about 36% less than formal workers, after accounting for other relevant personal and employment characteristics.

Striking a better balance between granting a reasonable level of protection against job loss and reducing labour informality is needed. One way ahead to improve the incentives to create new formal jobs would be to extend the unemployment insurance scheme currently used in the construction sector on an economy-wide basis. In this scheme, monthly employer contributions accumulate on individual worker accounts, over time. Such individual accounts can then be used to finance income support in the case of layoffs, similar to the scheme applied in Chile.

For newly created jobs, this protection could replace the income support currently coming from severance payments. For employers, this would reduce the financial burden of dismissals, as the contributions would have already been paid on a monthly basis. As a result, the scheme could reduce disincentives for formal hiring at no fiscal cost and foster a quicker recovery of job creation. If remaining account balances could be carried over to a new job, such a system would be an effective way to protect people rather than protecting individual work relationships. Job turnover is likely to be significant in the medium term, given that current industrial structures are the legacy of a highly protected and regulated environment that no longer reflects the best use of future opportunities. In addition, the newly arising opportunities from a more open economy bear the potential to create better-paying jobs but will require some entrepreneurship including trial and error, which would be supported by lower labour market rigidity.

**Figure 30. Labour market regulations are relatively rigid**

2014 or last available year




*Note:* The OECD indicators of employment protection are synthetic indicators of the strictness of regulation on dismissals and the use of temporary contracts, expressed on a scale from 0 (least restrictive) to 6 (most restrictive). They are compiled from 21 items covering different aspects of employment protection regulations as they were in force on January 1st of each year.
1. Reflects an average of severance pay requirements after 4 and 20 years of tenure.
2. Latin America includes: Brazil, Chile, Colombia, Mexico and Peru.
*Source*: OECD/IAB Employment Protection Database, 2013 update.

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### *Reducing gender inequalities and supporting the young*

Women are facing a number of disadvantages on labour markets and their participation is over 20 percentage points lower than for men. When they work, they spend an average of 31 hours in market employment, 10 hours less than men (González Rozada, 2017[29]). This difference explains their lower monthly earnings, which fall short of men's earnings by 23%, although women actually receive slightly higher hourly wages than men, both in the formal and informal sectors (INDEC, n.d.[30]). One reason why women may be constrained to work less remunerated hours may be that they spend more time with non-remunerated domestic tasks (Ministerio de Trabajo Empleo y Seguridad Social, 2017[31]). These disparities in opportunities across gender strengthen the argument for expanding early-childhood education, as the availability of affordable childcare is a key factor explaining cross-country differences in female labour market participation (OECD, 2012[32]).

Gender gaps are particularly visible among management positions, 64% of which are filled with men (Ministerio de Trabajo Empleo y Seguridad Social, 2017[31]). Given a higher average educational attainment of women, this suggests unexploited potential for improving management quality, where international surveys point to significant gaps (Bloom et al., 2014[33]).

Young women are particularly disadvantaged and often have a weak labour market attachment. 30% of women aged 15-29 are neither in employment, education nor training (NEET). With two thirds of these engaged in caregiving, this is often related to difficulties combining paid work with raising a family, which could be addressed with expanding early childhood education. Long periods of being NEET worsen future labour

market prospects for these women, contributing to the intergenerational persistence of inequality.

**Table 8. Past OECD recommendations on inclusive growth**

| Recommendations | Actions taken since the 2017 Survey |
|---|---|
| Strengthen mechanisms to identify and support students at risk of dropping out through tutoring and individualised support. | No progress made. |
| Merge teacher training institutions and strengthen their quality standards, governance, accounting requirements and transparency. | In the capital city of Buenos Aires, a new law has created a centralised teacher training institution. No progress made in other subnational jurisdictions. |
| Scale up training, employment services, and incentives for small business development. | The budget for active labour market policies and vocational training in collaboration with private sector companies has been increased. Still, there is scope for further expansion of active labour market programmes. |
| Expand early childhood education, promote flexible working time arrangements and extend paternity leave. | New early childhood education centres are being built. Paternity leave has been raised to 15 days. |
| Enforce formalisation and compliance with more labour inspections, in conjunction with other measures to strengthen incentives for formalisation mentioned above. | The recent tax reform has reduced social security contributions for low-paid workers. In addition, some social benefits can be maintained as an employment subsidy for up to two years for workers whose jobs are brought into the formal sector. |
| Index pension benefits to consumer prices. | A new pension indexation formula is largely based on consumer price developments. |
| Align retirement ages for women to those for men. | No progress made. |
| Integrate existing social protection programmes and allow them to share registries and targeting tools. | No progress made. |

### *Fighting corruption and strengthening institutions*

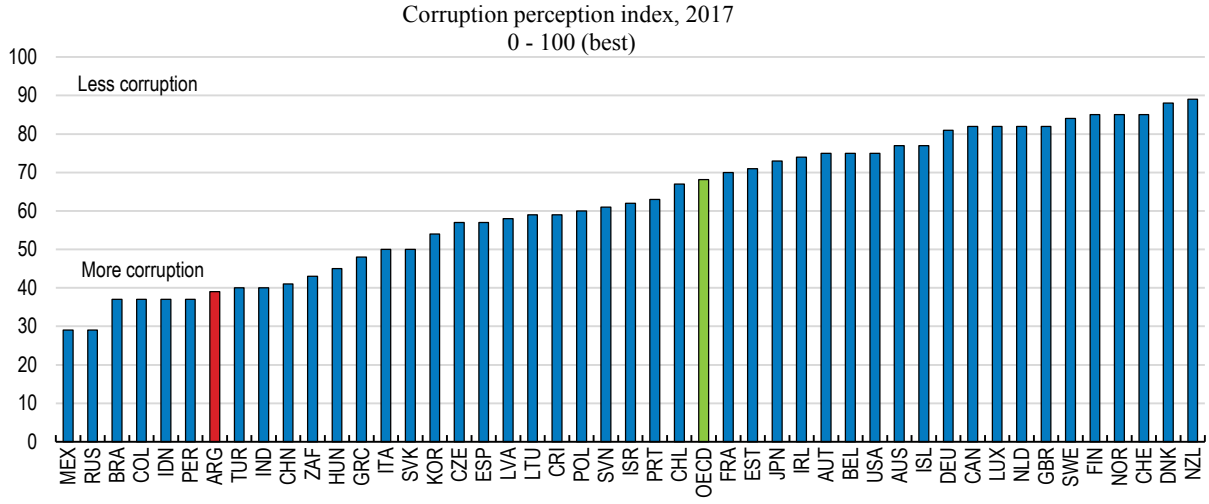
Corruption perceptions remain high despite recent improvements. Argentina scored 35 out of 100 in 2017 on the Transparency International Index (Figure 31), well below the OECD average. However, it improved its overall ranking by 10 ranks within a year. Corruption undermines the trust in public institutions, diverts precious public resources and affects the quality of public services and infrastructure on which many people, especially those with low incomes, rely every day. Recently initiated corruption investigations against former government officials and private companies have highlighted past corruption, but have also testified to the rising courage of the judiciary to pursue corruption allegations after over a decade of inaction.

Starting from a difficult legacy, the central government is tackling corruption on many fronts (OECD, 2019[34]). A Corporate Liability Law of 2017 and the 2018 Guidelines have addressed concerns about lack of corporate liability for corruption. An anti-corruption office founded in 1999 has become highly visible since 2016 and has proven an asset for speeding up progress on fighting corruption. The anti-corruption office has strengthened procedures to prevent and manage conflicts of interests in the Executive, resulting in multiple recommendations to senior officials. It also accepts and investigates anonymous whistleblower reports of misconduct. A reform of the Publics Ethics Law is envisaged for 2019, enhancing -among other things- the operational and financial autonomy of the anti-corruption office.

As a result of these efforts, compliance with mandatory asset disclosures of senior public officials in the executive branch has risen from 50% to 90% and can soon be accomplished electronically. It may be useful to extend this disclosure obligation to subnational governments or even officials of trade unions that exercise public duties such

as the management of health insurance schemes or teacher training. Enhancing the scope for disciplinary action within the public sector would also help to punish misconduct more effectively.

**Figure 31. Perceived levels of corruption remain high**




*Source*: Transparency International, available at https://www.transparency.org/research/cpi/overview.

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Typical high-risk areas for corruption include infrastructure projects, extractive industries, customs, public procurement and state-owned enterprises. Streamlining bureaucratic procedures and enhancing transparency can help in all of these areas. For example, centralised purchasing bodies and electronic procurement reduce the scope for side-payments and reduce costs by limiting collusion. Deploying modern technology more widely across the public administration has strong potential for enhancing transparency and reducing the scope for misconduct (OECD, 2011). A recent decree aims at improving the recovery of assets from corruption cases, in line with earlier OECD recommendations.

Extending the institutional progress made at the central government level across the entire public administration will be the next major challenge, as commitment varies at the provincial or municipal levels. Almost half of the provinces have no public ethics law, and the federal-level ethics law does not apply to provincial administrations. Although the federal system imposes limits on the leverage of the central government vis-à-vis the provinces, conditioning some transfers to subnational governments on progress in corruption prevention and transparency may be one useful way forward.

### *Productivity is low due to high barriers to entrepreneurship, trade barriers and difficulties in access to finance*

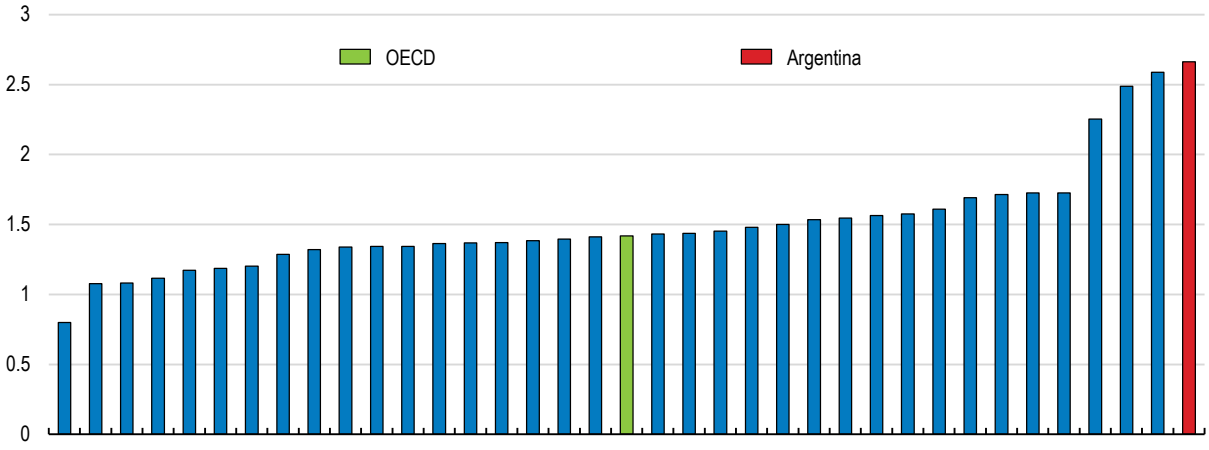
Current macroeconomic challenges make it all the more important to make rapid progress on structural reforms that can raise productivity. This is a key condition for rising prosperity through more and better jobs and higher wages, especially since many jobs are presently trapped in activities with limited potential for productivity growth. At the current juncture, Argentina should favour a swift implementation of key reforms that can stimulate medium-term productivity growth and at the same time support investment and

job creation in the short-term. This is the case for product market reforms, which have a high growth-pay-off, facilitate the entry of new firms, and are likely to translate into job creation.

Regulations on product markets serve a variety of legitimate objectives, but if ill-designed they can impose unnecessary restrictions on competition, and therefore on growth, living standards and ultimately well-being. Competition, which induces firms to become efficient or exit, has been traditionally weak and poor domestic policies have held back competitiveness of Argentinian producers, thus impeding them from exploiting their full productivity potential. The OECD Product Market Regulation Indicator and its sub-indicators measure the competition-restrictiveness of product market regulations across a wide range of countries. A recent update of the PMR indicator suggests that Argentina tops the list of countries with respect to the restrictiveness of product market regulations (Figure 32).

**Figure 32. There is room to reduce the restrictiveness of product market regulations**

OECD Product Market Regulation Indicator 2018 (Preliminary version)




*Note*: The OECD indicators of product market regulation are synthetic indicators that summarise a wide array of regulatory provisions on product markets across countries, with a focus on the degree to which these regulations restrict competition. They are expressed on a scale from 0 (least restrictive) to 6 (most restrictive). Data are preliminary and refer to 2018. The OECD average shown does not include the United States and Japan.
*Source*: OECD Product market regulation database.

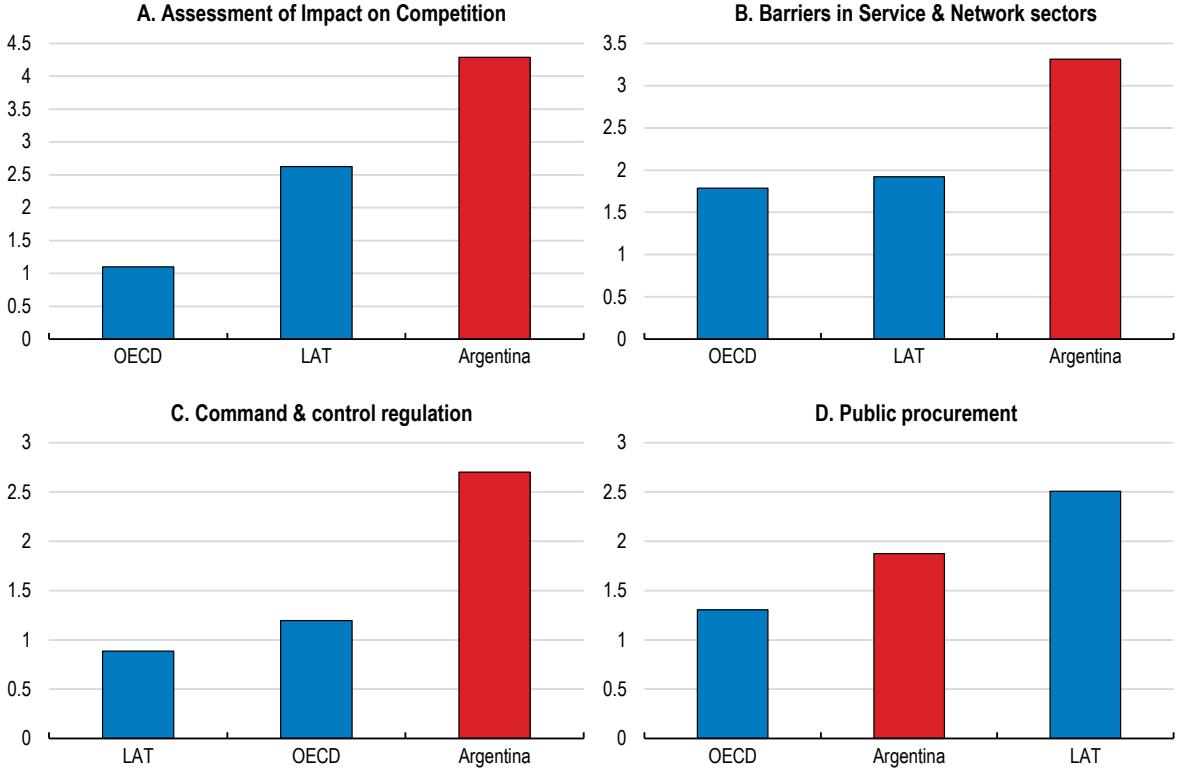
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Argentina has still the highest barriers to domestic entry in Latin America, well above the average of Brazil, Mexico or Chile (Figure 33). This is mainly due to high large entry barriers in network and services sectors, which can also have downstream effects on non-regulated sectors of the economy that use the output of the regulated sectors as intermediate inputs (Arnold et al., 2016[35]). The new entrepreneurship law (ley de emprendedores) has been an important step to reduce administrative burdens for start-ups of sole proprietary firms, as it facilitates firms' start-up by creating a new type of firm, which can be set up in one day. However, the barriers for creating a public limited company are still very high. This may be reflected by the fact that Argentina's manufacturing sector is characterised by a small number of young firms. The average Argentinian firm is 27 years old, well above average age of 21 years in Latin America and 17 years in OECD economies (Chapter 1). OECD work based on cross-country firm

level data indicates that young firms create more jobs (Criscuolo, Gal and Menon, 2014[36]). Over the last decade and across all countries analysed, 42% of all jobs were created by enterprises less than 5 years old. In Argentina, only 6% of firms are younger than 5 years.

**Figure 33. Product market regulations could allow more room for competition**

OECD Product Market Regulation Indicator (Preliminary version)




Note: The OECD average shown does not include the United States and Japan. LAT is the average of Brazil, Chile and Mexico. Data are preliminary and refer to 2018.
*Source*: OECD Product market regulation database.

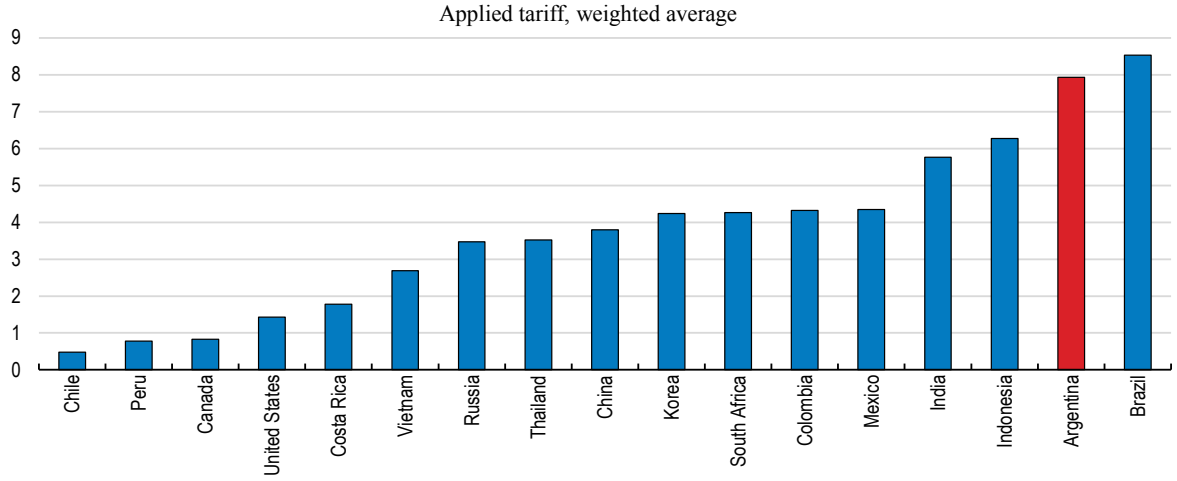
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Besides domestic barriers, the economy is significantly less integrated into the world economy than other emerging market economies, with exports and imports only accounting for less than 30% of GDP. This is largely the effect of exceptionally high trade barriers in international comparison (Figure 34). Given how closed the economy is, a swift removal of trade barriers, starting with sectors that provide key intermediate and capital inputs to other parts of the economy, could support significant productivity improvements, as discussed in Chapter 1. The benefits of a stronger integration into the global economy would disproportionally accrue to those with lower incomes.

A quick materialisation of positive effects and the minimisation of adjustment costs depend crucially on finding the best sequencing of policy reforms. In light of the strong empirical evidence underpinning the benefits of better access to inputs, sectors providing key intermediate inputs to other parts of the economy, but also capital goods, should be a first priority. This would benefit all sectors of the economy and in turn help to boost exports, as with expanded access to modern technology embodied in foreign inputs local

companies can become more productive and competitive in global markets (Amiti and Konings, 2007[37]). Reducing tariffs in intermediate sectors and eliminating most non-tariff measures would hence be an obvious first step, and could happen immediately to create new jobs and tap into new export opportunities, especially in light of weak domestic demand. Fiscal concerns should not hold back such a reform as total tariff revenues currently amount to only around 0.7% of GDP and the productivity effects of better integration would likely lead to an expansion of activity and additional tax revenues from growing downstream sectors.

**Figure 34. Tariff barriers are high**




*Source:* World Integrated Trade Solution database (WITS).

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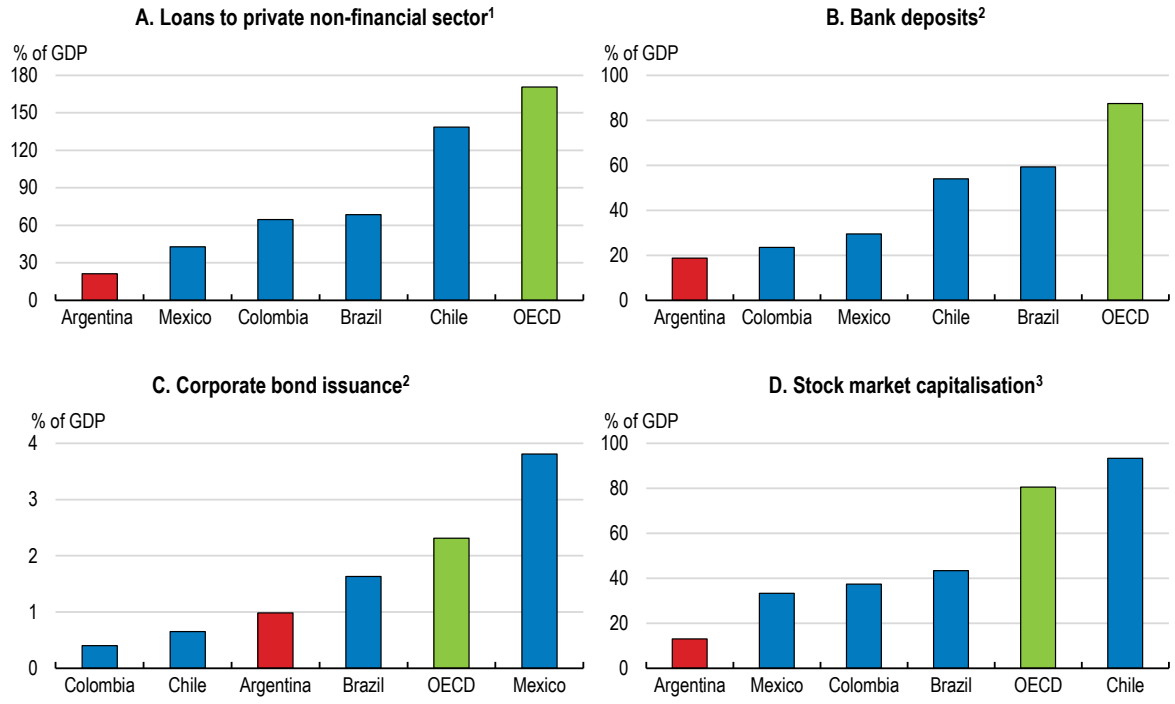
The removal of barriers to both domestic and external competition will create opportunities for new firms or industries to emerge, but these can thrive only if some activities from the past scale down to free resources for these newcomers. Current economic structures of industries and firms evolved under very different economic conditions, characterised by weak competition and a heavily regulated and protected productive sector. More competitive economies reap significant productivity benefits from a constant process of reallocating workers and capital across industries and firms (Andrews and Cingano, 2014[38]; Syverson, 2011[39]; Olley and Pakes, 1996[40]; Bartelsman, Haltiwanger and Scarpetta, 2009[41]; Foster, Haltiwanger and Krizan, 2001[42]).

The political economy of accommodating this necessary structural transformation is not easy. Resistance from workers whose jobs may vanish or change across firms or industries can be at least partly addressed by strengthening social safety nets, with a focus on protecting workers rather than jobs. Resistance from incumbent firms, however, should be met with caution as protecting firms against newly arising competition slows down the necessary changes. Finding the right sequencing, good communication and effective flanking policies to ensure that the benefits are shared by all can significantly facilitate the implementation of reforms.

Low credit penetration makes access to finance very difficult and holds back investment. The financial sector is small and serves mostly for payment transactions, rather than financial intermediation (Figure 35). Credit to the private sector amounts to 15% of GDP

or 84% of deposits. With deposits and lending heavily focused on the short term, maturity transformation is minimal. The almost complete absence of domestic institutional investors is a severe challenge, although the mutual fund industry has grown in recent years. A recent capital markets law has made regulation more rules-based and will help develop alternative sources of finance in the future. As the most sophisticated issuer of financial instruments, the public sector should take the lead in selling peso-denominated financial instruments and continue to build a yield curve to serve as reference prices for the development of private capital markets.

**Figure 35. The financial sector is less developed than in other countries**



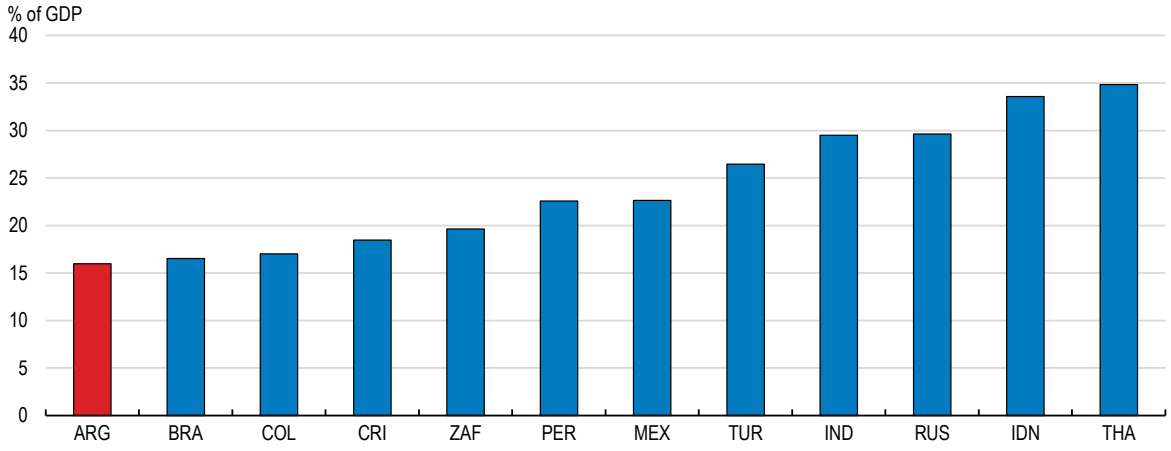

1. Data refer 2017Q4.
2. Data refer to 2016.
3. Data refer to 2017.

*Source*: Bank of International Settlements; and World Bank Financial Development and Structure Dataset.

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A key factor behind shallow domestic financial markets and short maturities is the scarcity of domestic savings (Figure 36). Moreover, many savers prefer to save in foreign currency, often outside the domestic banking system. Dollar-denominated assets, which include domestic real estate, have traditionally been a preferred saving vehicle. More deposits, including inflation-indexed ones, would enable banks to lend more and would reduce Argentina's reliance on external savings. But rebuilding savers' confidence in domestic financial intermediation takes time, not least due to circular causalities between savers' trust in the domestic financial system and currency on one hand and macroeconomic volatility on the other.

**Figure 36. Gross domestic saving is low**



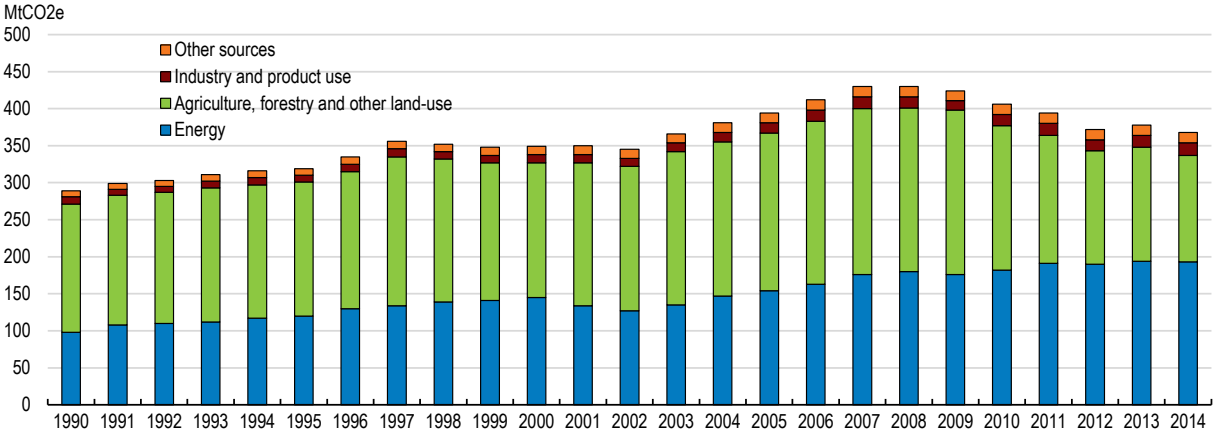

*Source*: World Bank WDI.

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### *Natural resources could be used in a more sustainable way while reducing greenhouse gas emissions*

More than 50% of Argentina's greenhouse gas (GHG) emissions come from the energy sector, while almost 40% come from agriculture, forestry and other land uses (Figure 37). Emissions have been declining since 2008, mostly due to reduced deforestation. Current absolute targets of 483 MT $CO_2$ equivalent correspond to an 18% decline relative to a business-as-usual scenario by 2030 (República Argentina, 2018[43]). Longer-term targets have not been set but are planned for 2020. As in many countries, more ambitious targets would be needed to meet the objectives of the Paris agreement. With appropriate policies, such targets could be consistent with stronger, more sustainable and inclusive economic growth (OECD, 2017[44]).

**Figure 37. Greenhouse gas emissions are declining, except for energy**




*Source*: Secretaría de Ambiente y Desarrollo Sustentable. *Emisiones de Gases de Efecto Invernadero*. Available at: http://inventariogei.ambiente.gob.ar.

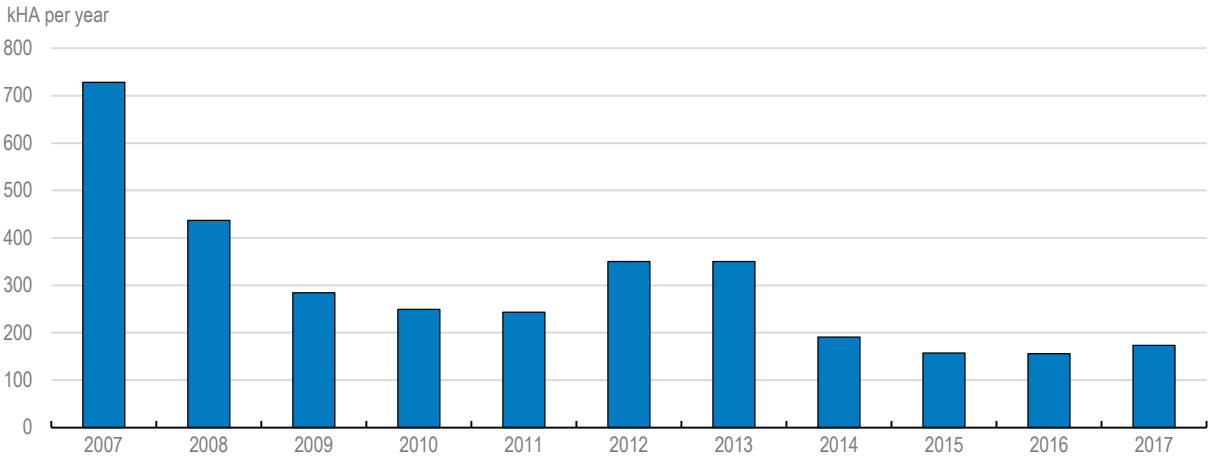
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Argentina has lost almost 13% of its forest area since 2001, more than the size of the Netherlands (Figure 38). This has been associated, among other factors, with the

expansion of livestock production and industrial-scale agriculture, especially soy, which has become the most important agricultural and export product (World Bank, 2016[27]).

Deforestation has been on a downward trend (Figure 38). A 2007 Forest Law protects 80% of the native forests from deforestation and has halved deforestation. However, weak enforcement capacity in provincial jurisdictions has limited the bite of the forest protection measures contained in Argentina's Forest Law. Reclassifications of protected forest areas by provincial authorities as well as illegal logging have caused higher GHG emissions and a loss of biodiversity (Aguiar et al., 2018[45]; Volante and Seghezzo, 2018[46]). Argentina is currently developing an automatic early warning system to track down illegal deforestation in real time. In addition, measures are being taken to restore native forests and promote the sustainable productive use of the forest, including sustainable livestock production in forest lands. Brazil's success using real-time satellite imagery to track down deforestation highlights the potential benefits of technology to strengthen enforcement (OECD, 2015[47]; Burgess, Costa and Olken, 2018[48]).

**Figure 38. Native forest cover loss has slowed down but remains substantial**




*Source*: Secretaría de Ambiente y Desarrollo Sustentable.

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Agricultural expansion, led to a large extent by increased soybean production, has been possible due to the quick adoption of technological innovation combining no-tillage farming, glyphosate for weed control and genetically modified, pesticide-resistant soy varieties (OECD, 2019[49]; World Bank, 2016[27]). This has allowed a 40% increase in soybean agricultural yields, while increasing carbon stocks and preserving soil structure (Secretaría de Agroindustria, Accessed 2018[50]).

The use of insecticides and herbicides has increased since 1993, although it remains below OECD levels. Possible risks to human health or the environment are being discussed globally and are uncertain. This would warrant a more systematic analysis of possible hazards. Argentina has made progress in this area, but could undertake an in-depth evaluation of the negative externalities associated with different types of pesticides, their level of application and impact at specific locations and hotspots, with a view to implementing targeted measures to manage pesticide use. For example, Sweden,

Denmark, Norway, France, Italy and Mexico apply specific taxes on pesticides, in addition to health and safety rules for agricultural workers.

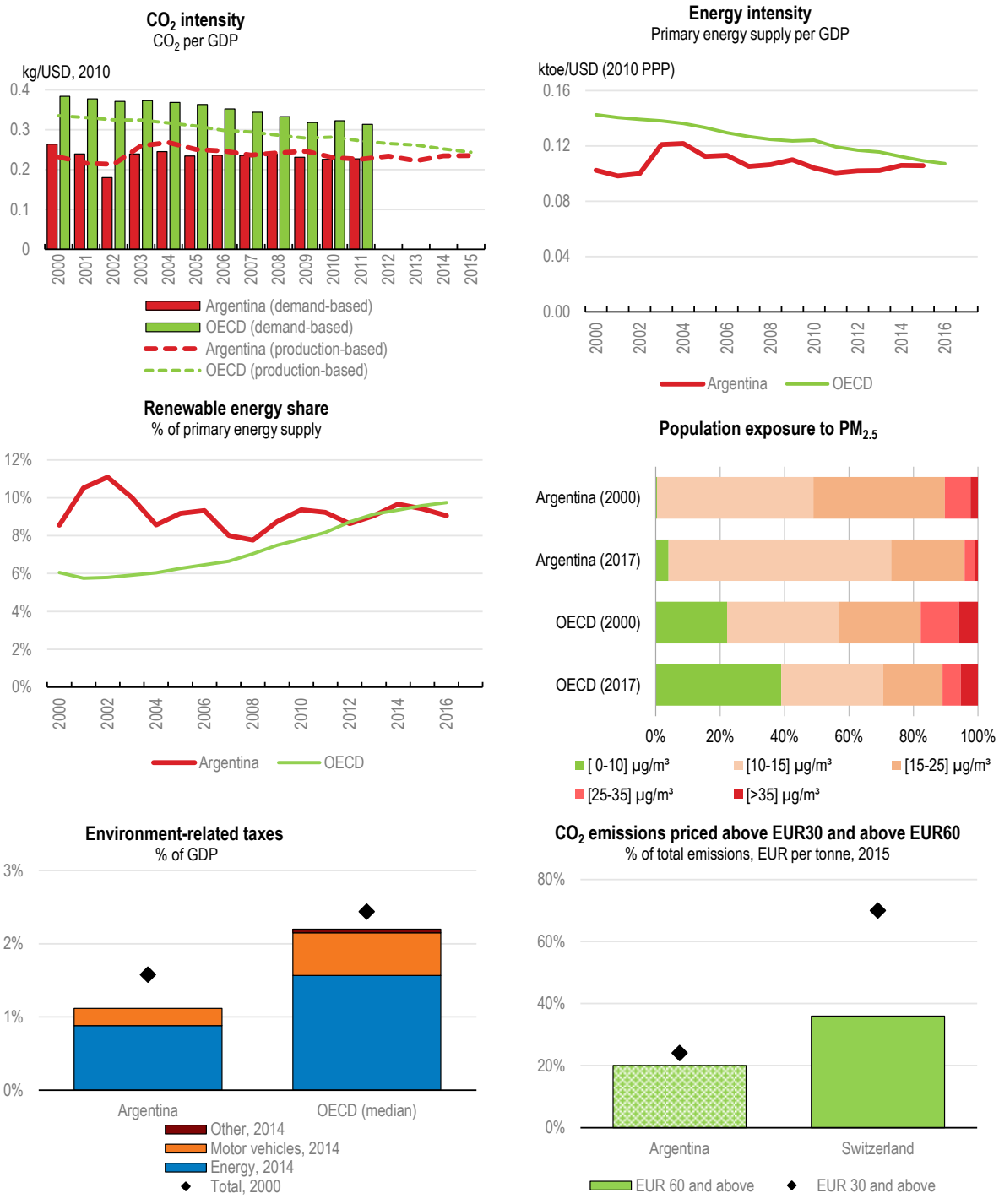
Energy production is 60% from thermal sources (World Bank, 2016[27]). Building on recent progress in expanding renewable energy production and the new legal framework for renewable energies and distributed generation has significant potential to reduce energy-related emissions. Only 20% of hydro generation potential is used, while wind and solar energy production are of high quality in Patagonia and the north-western region, respectively (World Bank Group, 2019[51]). Where subsidies are required for stimulating investment in renewable energy, reverse auctions to install capacity with the least support may be cheaper than the current practice of guaranteeing a fixed price in foreign currency.

Energy intensity has declined despite subsidies, which are being phased out, and low taxation, and it remains below the OECD average (Figure 39). Energy taxes cover 25% of CO2 emissions at or above the widely used benchmark of EUR 30 (OECD, 2018[52]). A carbon tax of around EUR 8.50 has been introduced in 2017. Raising carbon taxes gradually would help achieve climate policy targets efficiently and provide more tax revenues. Energy taxes have the additional advantage that they are difficult to avoid. Reviewing the exemption of natural gas, perhaps in conjunction with improved building regulations, would further strengthen incentives for energy efficiency. Despite widespread use of heating and air conditioning, even upscale dwellings generally lack thermal insulation.

Higher carbon taxation could raise revenues, reduce energy-related GHG emissions and fight air pollution at the same time, although it would require a careful assessment of the distributional consequences on the poor. Most of Argentina's 92% urban population is exposed to small particle concentrations exceeding the WHO-recommended limit of 10 micrograms per cubic metre, with concentrations 6 times above that in Buenos Aires (OECD, 2018[53]).

Information on air quality remains patchy and should be improved, but passenger and cargo vehicles are major pollutants, as half the vehicles are older than 10 years (22% older than 20 years) and 35% are diesel powered (World Bank, 2016[27]). Diesel transport fuel is taxed less than petrol, although it is more environmentally harmful, while agriculture is exempt from fuel taxes. Compressed natural gas is also widely used to power vehicles, and results in lower greenhouse gas emissions compared to gasoline and diesel fuels. Taxing vehicles depending on their emissions, including their $CO_2$ and $NO_x$ performance, could reduce emissions and pollution. This would imply higher taxes on more polluting vehicles and higher taxes on diesel fuel. As a first step into this direction, energy efficiency labelling will become mandatory by 2020. New investment in natural gas production is expected to increase the use of natural gas in the transport sector, reducing GHG and PM emissions.

**Figure 39. Green growth indicators**




*Source*: OECD

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# Thematic chapter

# Chapter 1. Fostering the integration into the world economy

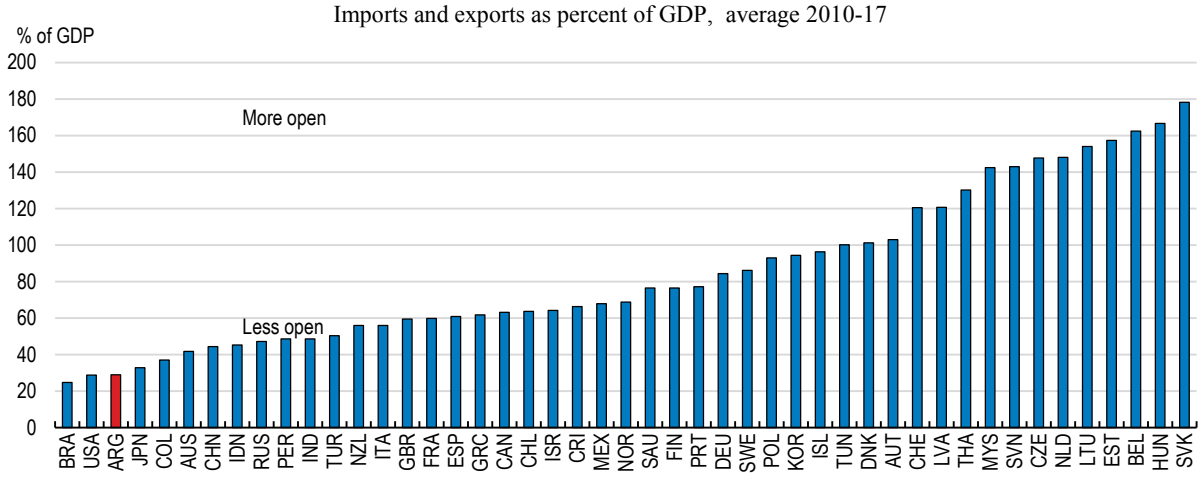
*Ever since the early 20th century, Argentina has failed to fully reap the benefits that integrating into the world economy can offer. With exports and imports accounting for less than 30% of GDP, Argentina is significantly less integrated into the world economy than other emerging market economies. Many tariff lines remain at the maximum level of 35%, while non-tariff barriers persist in many sectors. Related to this, the level of competition is low in many sectors, and consumer prices are high in international comparison. The stock of foreign direct investment is also significantly lower than that of other Latin American countries. Consequently, productivity performance has been weak and Argentina is missing out on many opportunities to create more productive and better-paying jobs. A stronger international integration would improve the ability of Argentinian firms to compete in foreign markets through greater access to intermediate inputs, capital goods and technology at internationally competitive conditions. This would boost investment and productivity and allow them to create more and better paying jobs. Lower trade barriers would also increase purchasing power of consumers, with particularly strong effects among low-income households. However, the opening up of the economy will bring about reallocations of jobs across industries and firms, which will be challenging for affected workers. Improving training opportunities and access to high quality education will be crucial for workers to move into new jobs. Moreover, the current system of labour market protection is centred on high severance payments, leaves informal employees without protection and adds to disincentives to formal job creation. An economy-wide extension of the current unemployment protection scheme of the construction sector, which is based on individual accounts, could be more effective to protect workers against temporary income losses.*

International trade has been an important driver for economic growth. It has significantly contributed to raising living standards across countries, reducing poverty and enabling emerging economies to catch up with advanced economies.

Both consumers and producers can benefit from stronger integration into the global economy and the opportunities it creates. For producers, the access to cheaper and higher quality inputs and capital goods leads to significant productivity gains and stronger competitiveness, which is the basis for improvements in real wages (Amiti and Konings, 2007[1]; Goldberg et al., 2009[2]). For consumers, trade has potential to reduce prices and enlarge the variety and quality of available goods, which improves particularly the purchasing power of low-income households.

Ever since the early 20th century, Argentina has failed to fully reap the benefits that integrating into the world economy can offer. With exports and imports only accounting for less than 30% of GDP, Argentina is significantly less integrated into the world economy than other emerging market economies of similar size (Figure 1.1). This reflects several decades of inward oriented policies including a strategy of industrialisation through import substitution. Trading little, Argentina has also remained on the sidelines of global value chains, all of which represents significant lost opportunities for growth and well-being.

**Figure 1.1. Exposure to trade is low**




*Notes:* Larger economies typically show smaller trade to GDP ratios because they trade more with themselves (i.e. more intensive internal trade in intermediate inputs and final goods). Argentina shows the lowest trade to GDP ratio among the smaller economies.
*Source*: IMF World Economic Outlook; OECD Economic Outlook database.

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Embracing the global economy is a significant step and brings important structural changes to an economy. To ensure that Argentinians benefit from the positive effects of integration, open trade needs to be complemented by a set of structural policies that facilitate the structural transformation and mitigate the adjustment costs it creates for workers (Winters, Mcculloch and Mckay, 2004[3]; Goldberg and Pavcnik, 2007[4]). Adjustment costs for workers can arise particularly in import-competing sectors, as jobs are shed in low productivity firms and shift towards new or high productivity firms or

even new sectors. This calls for supporting workers with targeted education and training programmes to address future skill needs, as well as effective social protection for all, including those who currently work in the informal sector.

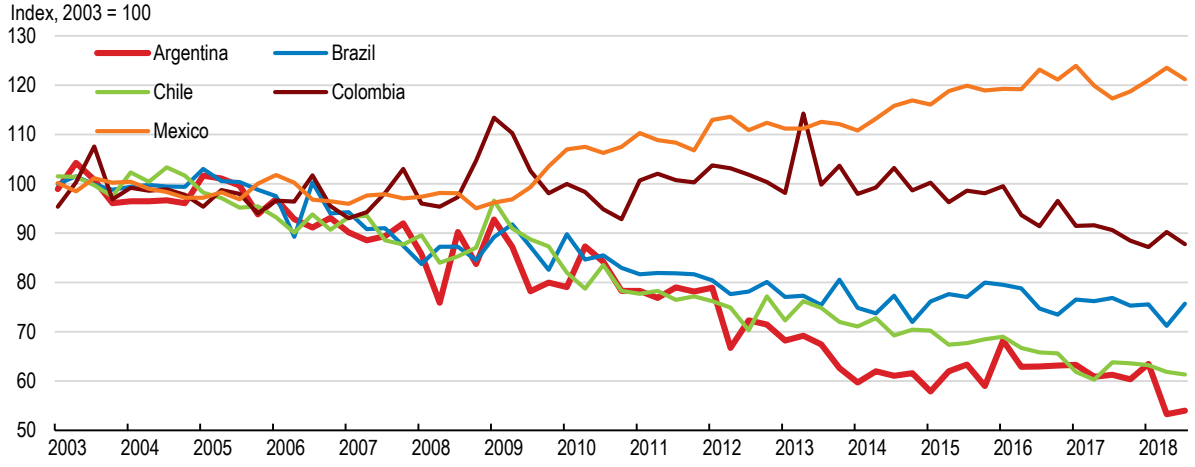
The adjustment challenges are no reason to lock in the status quo in which many jobs are trapped in low-productivity activities. The only way for incomes to rise in a sustainable manner is that firms and workers find new ways to become more productive. In Argentina, tapping into the unexploited potential of international trade presents probably the best opportunity to do so.

Well-designed policies can go a long way to support this transformation by reducing frictions on labour markets, improving infrastructure, especially transport infrastructure, and encouraging innovation. Moreover, further reducing barriers to competition on product markets is crucial, as Argentina still has the highest barriers to entrepreneurship among countries covered by the latest revision of the OECD Product Market Regulation (PMR) Indicators. This chapter evaluates the opportunities and consequences of an increasing integration into the world economy for Argentina and discusses important policy options to support this trajectory.

## Argentina has not shared in the benefits of international trade

Ever since the early 20th century, Argentina's inward focus has prevented it from performing at its best on global markets. During the last decade, trade has been steadily falling and at less than 30% of GDP, it is even lower than in much larger economies that typically show smaller trade to GDP ratios due to more intensive internal trade. Export performance, which measures how exports have grown relative to the overall growth of Argentina's export markets, has been worsening persistently since 2005 (Figure 1.2).

**Figure 1.2. Export performance has declined**

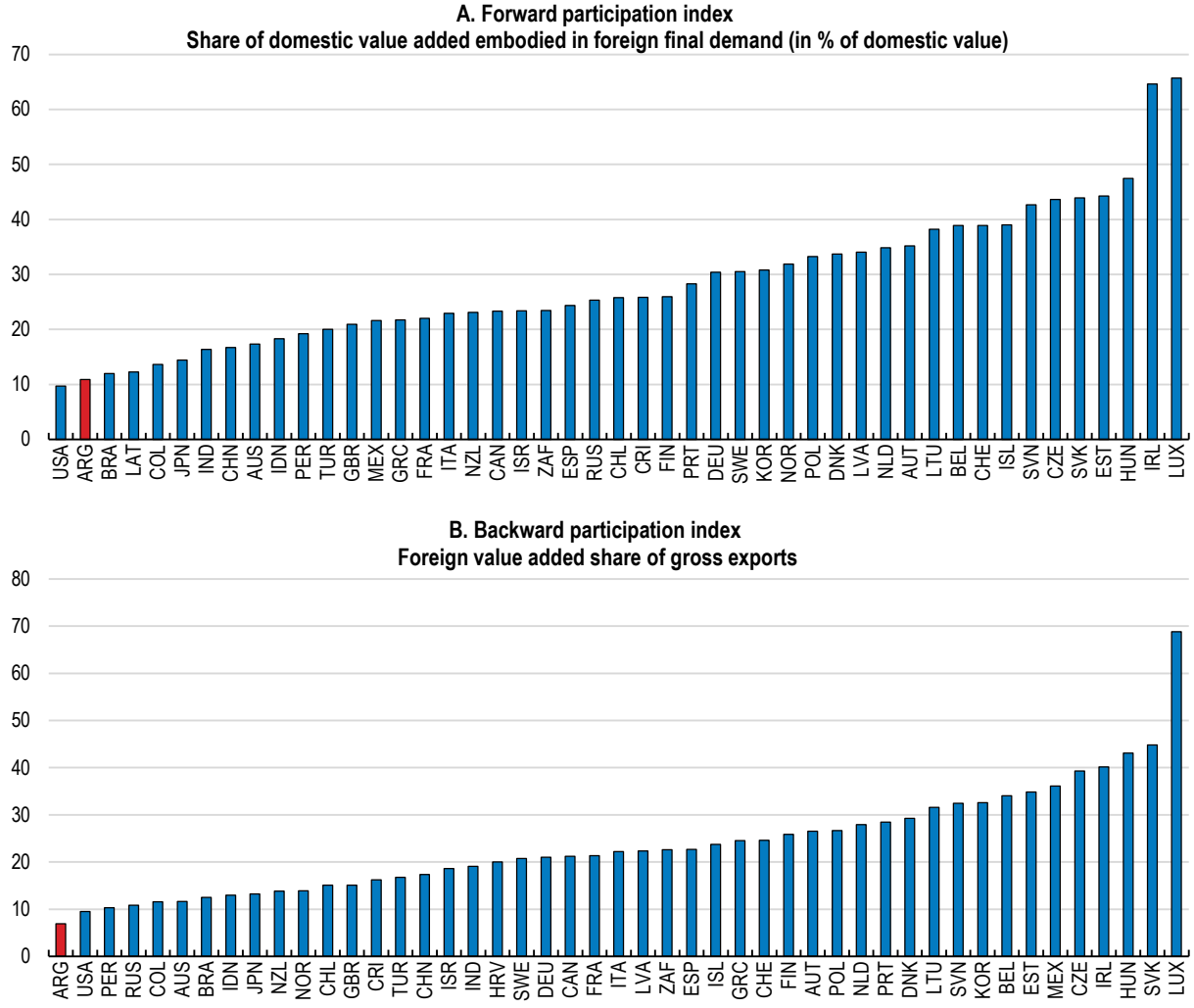



*Note*: Export performance is measured as actual growth in exports relative to the growth of the country's export markets, which represents the potential export growth for a country assuming that its market shares remain unchanged.
*Source*: OECD Economic Outlook database.

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Regarding the participation in global value chains, Argentina is one of the least integrated economies (Figure 1.3). A small share of domestic value added is exported, i.e. its forward integration into global chains is low. In addition, the low value of the backward integration index shows that firms make little use of foreign intermediate goods and services as well as foreign capital goods, likely one of the main reasons for the low export performance of firms. Argentina's only discernible value chain link is with neighbouring Brazil, while many Asian and European economies are tightly intertwined through their trade relationships, both among themselves and with other advanced economies (Figure 1.4). Remoteness with respect to international manufacturing hubs, weak transport infrastructure and low regional trade integration in Latin America can help to explain the low integration of Latin American economies into global value chains (Cadestin, Gourdon and Kowalski, 2016[5]).

**Figure 1.3. Argentina's' integration into global value chains is low**

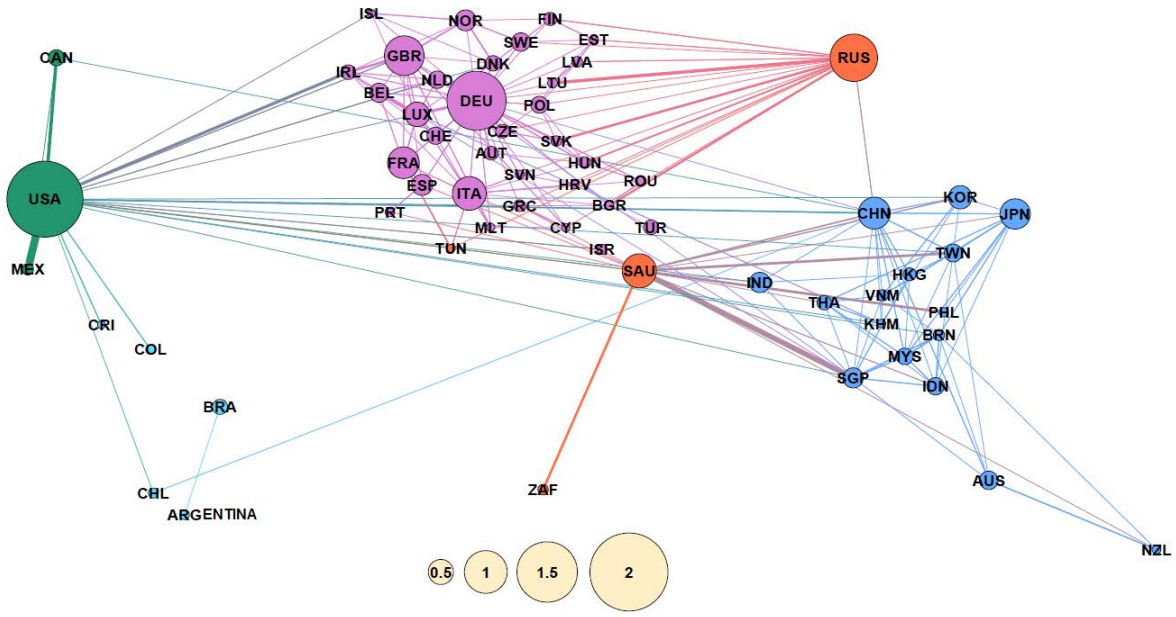



*Note*: Larger economies typically show smaller participation in global value chains and international trade.
*Source*: OECD Trade in Value Added (TiVA) data base (September 2018).

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**Figure 1.4. Argentina has remained on the sidelines of global value chains**

A map of global value chains




*Note*: A larger circle reflects an economy that is more connected within global production networks. A line reflects input flows exceeding 2% of total inputs used in the importing or exporting economy.
*Source*: (Criscuolo and Timmis, 2018[6]).

The export structure is dominated by agricultural commodities, which account for around 48% of all merchandise exports, and processed food products which account for around 17%. Argentina is the world's largest exporter of soybean meal and soybean oil, which together with soybeans account for 27% of total Argentinian exports (Table 1.1). Other important agricultural export products are corn and wheat (11% of exports), bovine meat (2.2%), crustaceans (2.1%), and wine (1.3%). Major manufacturing exports include motor vehicles (8% of exports), which are predominantly exported to neighbouring Brazil, although exports to other Latin American markets have increased in recent years. Main imports comprise motor vehicles and parts, petroleum oil and gases, electrical and office equipment, machinery and parts, and pharmaceuticals.

**Table 1.1. The structure of exports and imports**

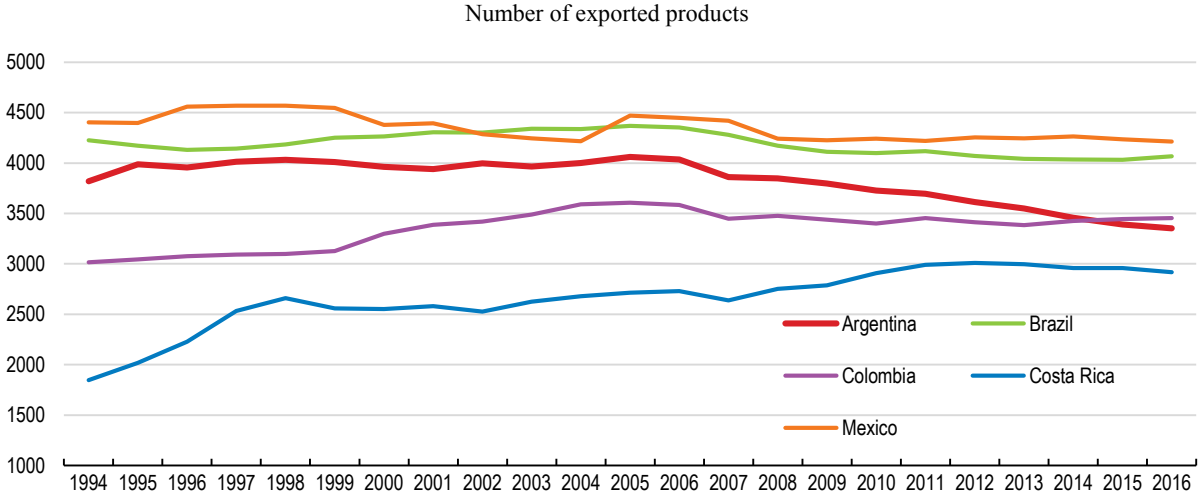
10 main exported and imported goods in 2017 (in % of total merchandise exports and imports, respectively)

| Exports (in % of total merchandise exports) | | Imports (in % of total merchandise imports) | |
|---|---|---|---|
| Soybean meal | 15.6 | Motor cars and other motor vehicles | 9.4 |
| Corn | 6.7 | Parts and accessories for motor vehicles | 4.2 |
| Soybean oil | 6.4 | Electrical apparatus for line telephony or line telegraphy | 3.4s |
| Motor vehicles for the transport of goods | 5.6 | Petroleum gases and other gaseous hydrocarbons | 3.3 |
| Soybeans | 4.7 | Motor vehicles for the transport of goods | 3.1 |
| Wheat | 4.0 | Petroleum oils, other than crude petroleum | 3.0 |
| Gold | 3.9 | Automatic data processing machines and parts thereof | 2.0 |
| Motor cars and other motor vehicles | 2.6 | Medicaments | 1.9 |
| Prepared binders for foundry moulds or cores | 2.2 | Parts for machinery | 1.9 |
| Crustaceans | 2.1 | Other aircraft (for example, helicopters, aeroplanes); spacecraft | 1.6 |

*Source*: OECD calculations based on WITS data for merchandise exports and imports.

Overall, the diversification of merchandise exports has fallen during the last decade (Figure 1.5). This partly reflects rising exports of soybeans, soybean oil and meal, a trend that has been more pronounced than in other Latin American economies. Main export destinations are Brazil, the EU, China and the U.S., which are also the four main import partners (Figure 1.6). Besides Brazil, Argentina trades relatively little with other Latin American countries, reflecting both a lack of bilateral agreements beyond Mercosur and infrastructure weaknesses.

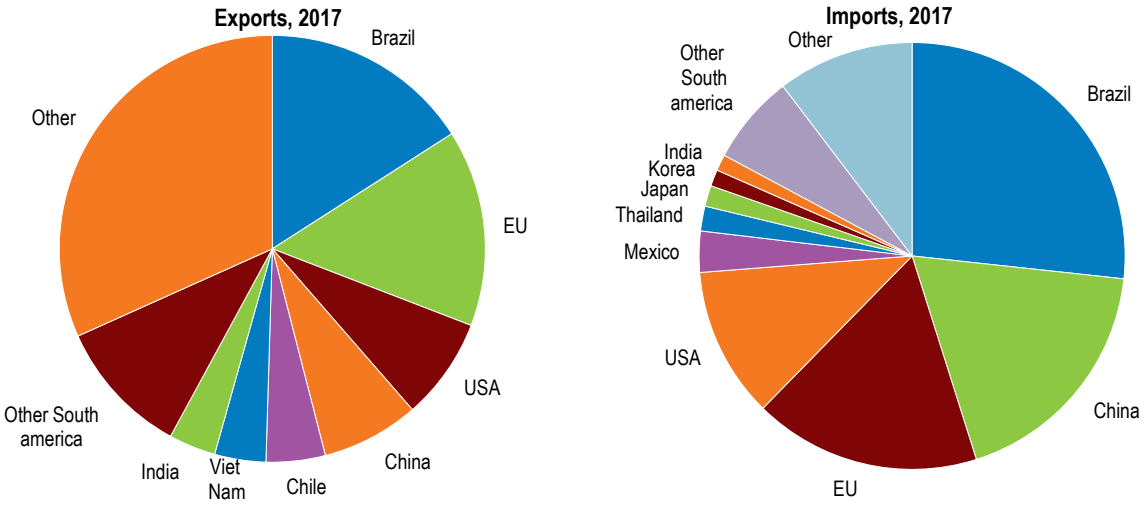
**Figure 1.5. Export diversification has fallen**




*Note:* A product is defined as a 6-digit product category in the Harmonised System (HS) product classification.
*Source*: WITS database (2018).

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**Figure 1.6. Argentina's main trading partners**




*Source*: OECD calculations based on WITS data.

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Beyond merchandise exports, exports of knowledge-based services have increased from the late 1990s until 2017 (Gayá, 2017[7]). They account for almost 9% of total exports in goods and services and comprise mostly business, professional and technical services as well as software and computer services (including audio-visual services). Main services export destinations are the US with 41% and the European Union with 26%, but also other Latin American countries (Gayá, 2017[7]). Imports of knowledge based services have also risen, mostly as intermediate inputs into the production of goods and services, amounting to around 8% of imports in goods and services.

## Import protection is high in international comparison

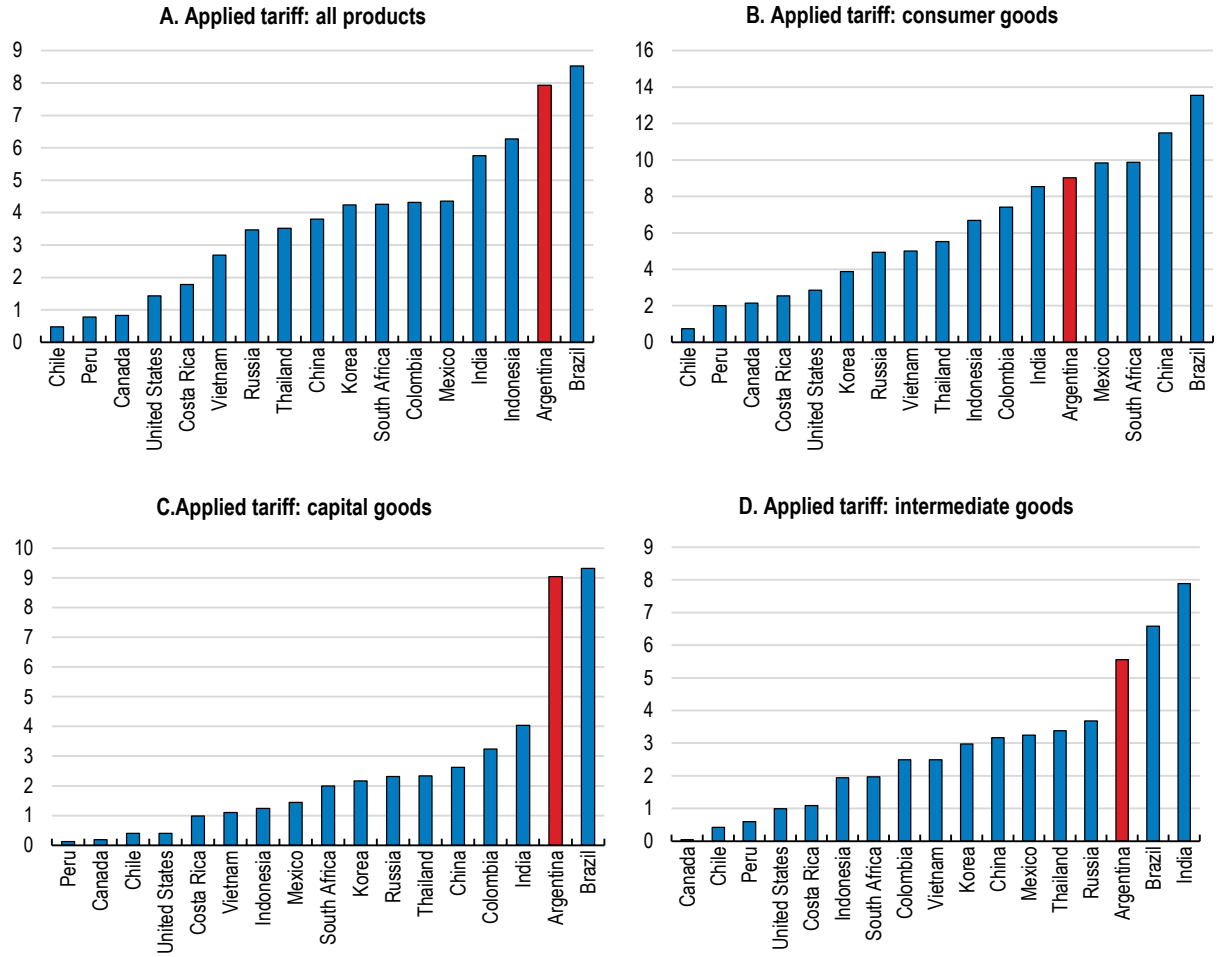
The main reason for Argentina's low integration into the world economy and global value chains are high tariffs and non-tariff trade barriers, which increase the costs of imports substantially.

### *Tariffs are high*

Tariffs are not only high on average, but they also affect intermediate inputs and capital goods, raising production costs across the economy (Figure 1.7). In other words, tariff protection not only raises consumer prices, it also hurts the competitiveness and productivity of firms and their ability to create jobs.

**Figure 1.7. Tariff protection is high, especially for capital goods and intermediate inputs**

Average applied tariffs by product class for the year 2017 (in %)



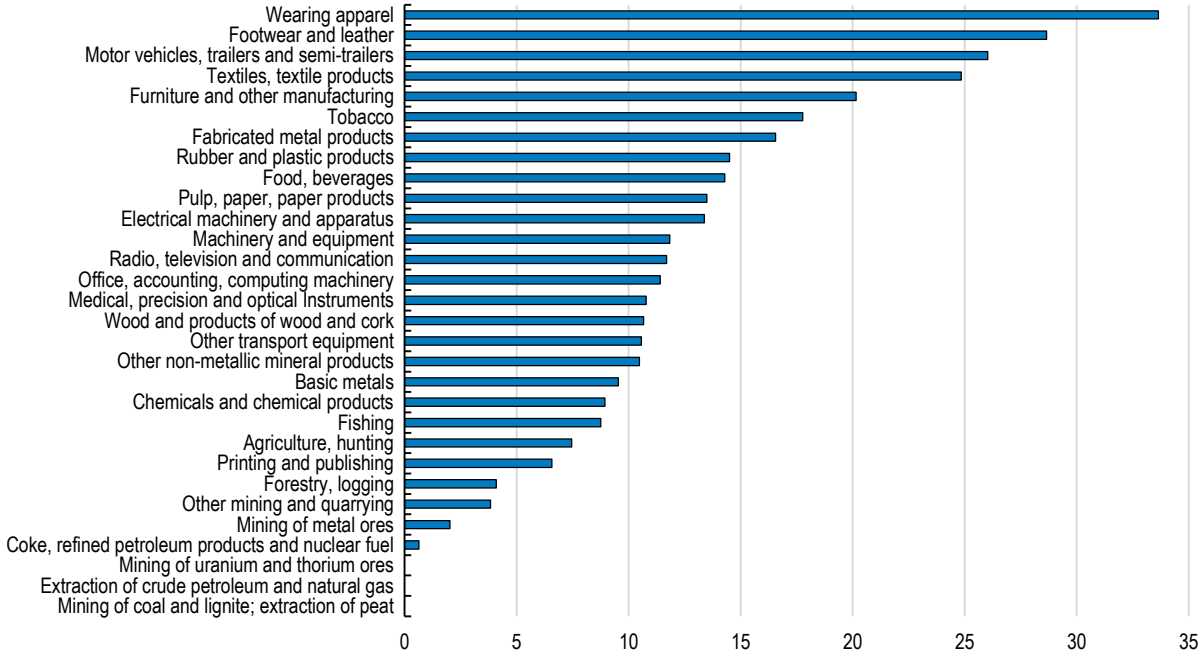

*Note*: Average applied tariffs for each product class are computed as weighted average of effectively applied tariffs (AHS) across single products within the product class, whereby the tariffs are weighted by the import value of each product.
*Source*: World Integrated Trade Solution database (WITS).

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Behind high average tariffs lies a strong heterogeneity in tariff rates across different industries (Figure 1.8). Wearing apparel, textile products and footwear, motor vehicles and furniture are highly protected by average tariffs larger than 20%. Also sectors that produce mainly intermediate and capital goods are protected by tariffs of around 15%, e.g. fabricated metal products, rubber and plastic products or machinery and equipment. Although tariffs on computers, tablets and notebooks were eliminated in 2017, the average tariff for other office, accounting and computing machinery is still at around 11%. By contrast, tariffs for petroleum, gas, mineral products and other raw materials are low, consistent with being a net importer of oil and gas.

**Figure 1.8. Many industries are protected through high import tariffs**

Average tariffs by industry for the year 2018 (in %)




*Source*: Ministry of Production and Employment (June 2018).

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### *Non-tariff barriers add substantially to levels of protection*

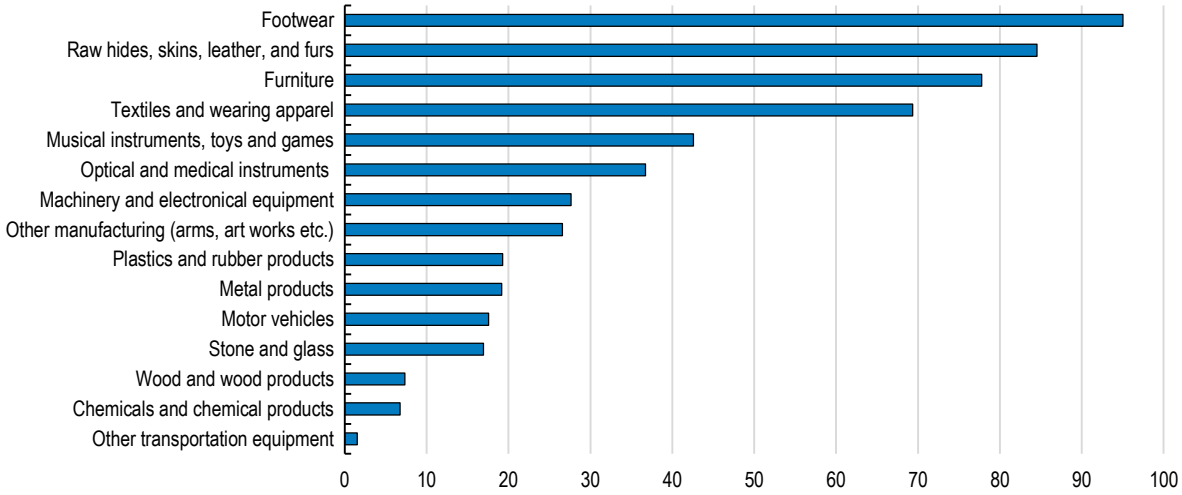
Beyond tariffs, non-tariff measures also add to import costs in Argentina. Non-automatic import licenses have effectively also added to protection from foreign competition in certain industries (Figure 1.9). In sectors like textiles and wearing apparel, footwear, leather products and furniture, more than 70% of imports are still subject to non-automatic import licenses. More than 30% of all imports of machinery and electronic equipment, optical and medical instruments as well as toys, instruments and games are still subject to non-automatic import licenses.

While countries around the world increasingly use non-tariff measures to protect domestic industries, it is important to acknowledge that many non-tariff measures result from legitimate policy objectives and are not necessarily motivated by protectionist motives (Baldwin and Evenett, 2009[8]; WTO, 2012[9]; Bown and Crowley, 2013[10]). For example, product standards and technical regulations are mainly imposed to overcome market failures and protect the health of domestic consumers.

Recent evidence shows that countries can use product standards and their enforcement to protect domestic industries (Grundke and Moser, 2019[11]). Non-tariff measures such as requirements to obtain a non-automatic import license can impose considerable costs on importers. Argentina has made considerable progress in reducing the number of items subject to non-automatic import licenses.

**Figure 1.9. Non-automatic import licenses are required in many industries**

Share of imports requiring a non-automatic import license in 2018 (in % of total industry imports)

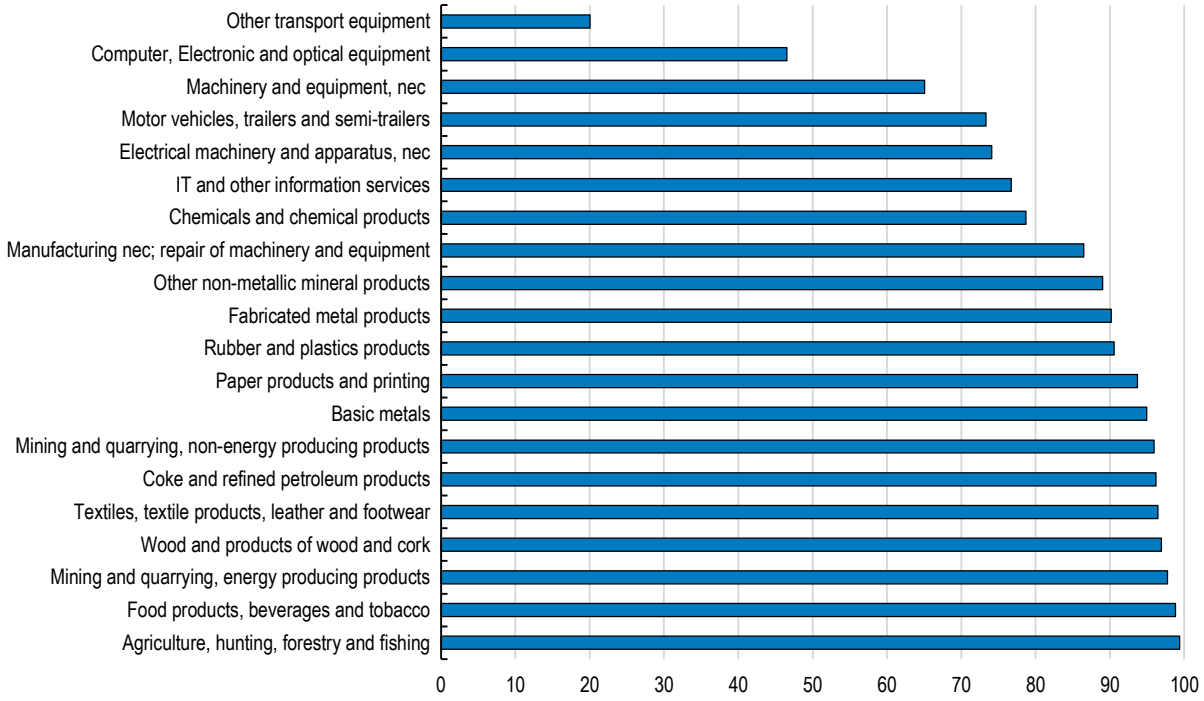



*Note*: The raw data indicates which HS 8 digit code is covered by the requirements of non-automatic import licenses in Argentina as of June 2018. The graph shows for each group of HS 2 digit product groups the share of import value that is covered by non-automatic import licenses.
*Source*: Ministry of Production and Employment (June 2018).

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**Figure 1.10. Domestic producers play a dominant role in many tradable sectors**

Share of domestic production in total final demand by industry (in %)




*Source*: OECD Trade in Value Added (TiVA) data base (September 2018).

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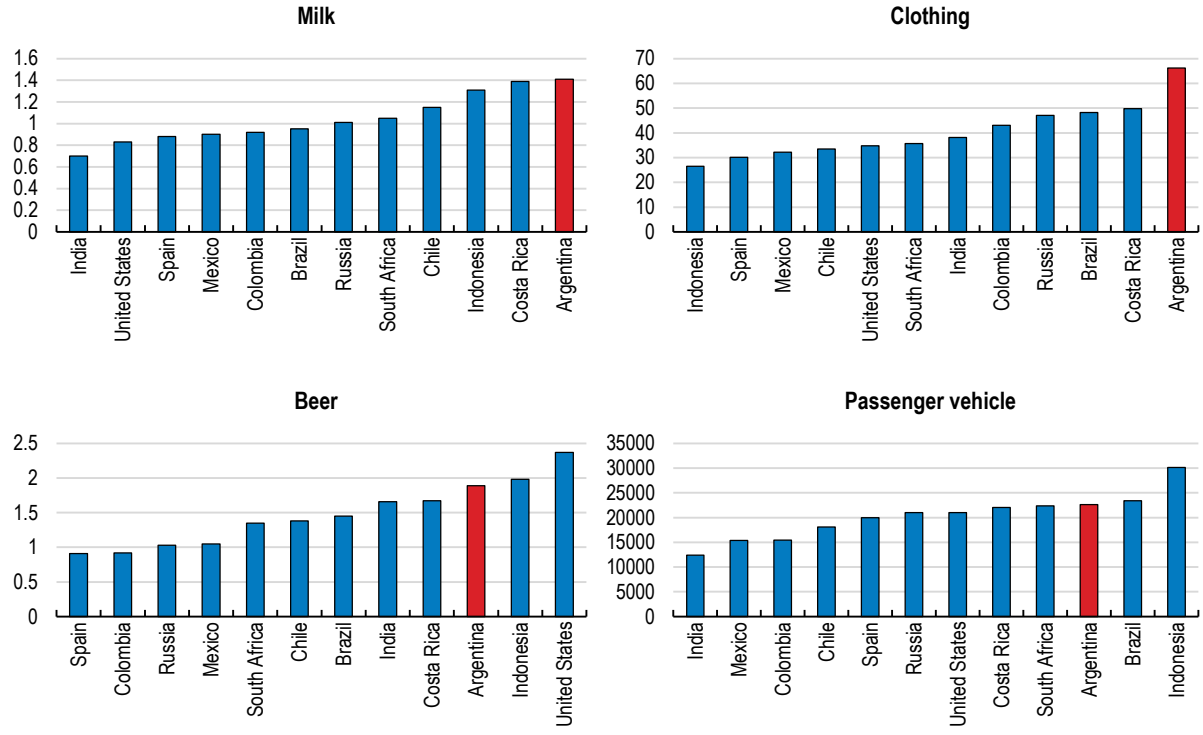
### *Many markets are dominated by domestic producers and prices are high*

As a result of the effect of tariff and non-tariff barriers, key tradable sectors are dominated by domestic producers (Figure 1.10). Bearing in mind that Argentina's population is only 45 million inhabitants, the strong role of domestic producers is surprising. For comparison, only 75%, 74% and 80% of tradable goods are domestically produced in Chile, Mexico and Colombia, respectively.

This is one factor behind the significantly higher prices that Argentinian consumers pay for a wide range of goods, ranging from basic foodstuff items like milk to cars (Figure 1.11). High prices are consistent with evidence of rents that have resulted from shielding domestic producers from foreign competition. This has also reduced the incentives and discipline for undertaking constant improvements and innovation (Martínez Licetti et al., 2018[12]).

**Figure 1.11. Prices are high in international comparison**

Prices of selected goods and services in current USD for the year 2017




*Note*: Clothing prices are proxied by the price of a dress in a Chain Store. Car prices are proxied by the price of a Toyota Corolla or equivalent new car. Beer refers to a domestic brand. Prices are in current USD for the year 2017. Due to the real devaluation during the course of the year 2018, the USD prices of Argentinian products have decreased in comparison to other countries rendering Argentinian products more competitive in global markets (Figure 1.23). However, relative price differences for many goods and services persist across countries, when they are expressed in relationship to a common consumption basket (in USD PPP).
*Source*: OECD computations based on Numbeo data.

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## Lowering trade barriers can create jobs and boost growth

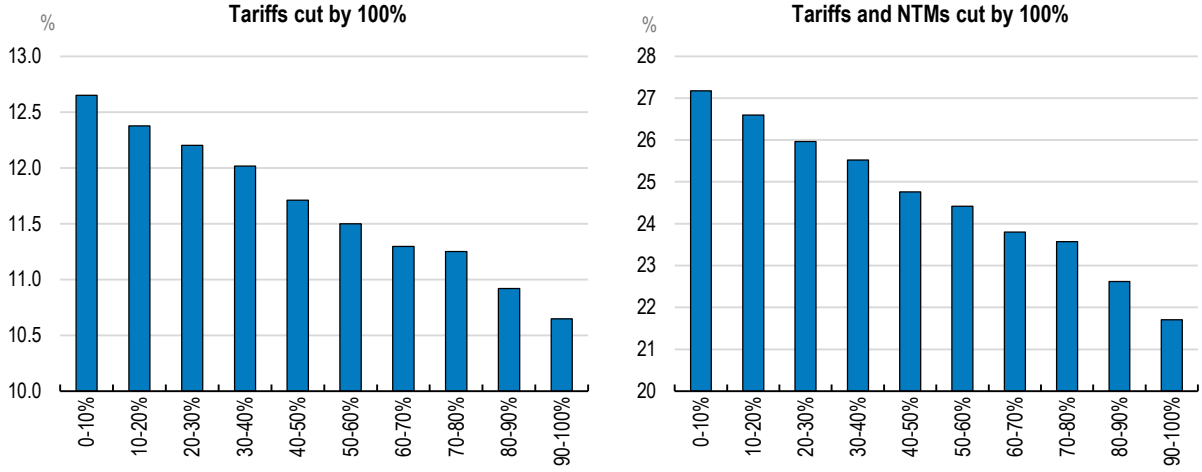
Lowering trade barriers can bring substantial benefits through a number of channels, which will be discussed in this section. Consumers can expect lower prices, higher quality and more variety. For domestic producers, the situation is slightly more complex as they are affected in several ways on input and output markets, but the newly created opportunities clearly outweigh the associated challenges.

### *Trade can reduce consumer prices, benefitting particularly poorer households*

The most evident and immediate effects of lower trade barriers are falling import prices for consumers. Estimates suggest that Argentinian consumers could see their purchasing power increase by 25% on average under the ambitious scenario of a full removal of trade barriers (Figure 1.12).

**Figure 1.12. Potential consumer benefits from lower trade barriers are progressive**

Increases in real purchasing power (relative to total expenditures) due to a reduction of tariffs and/or non-tariff measures (NTMs) by 100% for each household income decile (in %)




*Note*: The x-axis shows the ten income deciles of the household income distribution, starting with the poorest decile (0-10%). Ad-valorem equivalents of non-tariff measures (NTMs) for Argentina are taken from (Cadot, Gourdon and van Tongeren, 2018[13]). Tariff rates at the detailed product level are taken from WITS and from data sent by the Ministry of Production and Employment. The data and the methodology are described in more detail in Annex 1.A3.
*Source*: OECD calculations based on the Argentinian household survey ENGH 2012/2013.

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Moreover, these benefits are progressive as lower income households spend larger shares of their incomes on tradable goods such as food, home appliances, furniture and clothing. A detailed analysis of reducing trade protection, taking into account differences in the consumption basket across households, suggests that the lowest-income decile could gain as much as 27% in terms of additional purchasing power, compared to 22% for the top decile (Arnold and Grundke, 2019). Lower tariffs and non-tariff measures would therefore bring particular benefits to poor consumers, which is in line with evidence found for other countries (Fajgelbaum and Khandelwal, 2016[14]; Porto, 2006[15]).

Besides price reductions, a stronger integration would give consumers access to a larger variety and higher quality of products and services (Broda and Weinstein, 2006[16]). Non-tariff measures seem to play a particularly important role in the import protection for basic consumption goods and reducing only tariffs would have about half the effect of full liberalisation. Non-tariff measures also include legitimate technical regulations or product standards, so that a realistic reduction of trade barriers might not include a full elimination of non-tariff measures (WTO, 2012[9]). At the same time, non-tariff measures that are not motivated by trade protection are less likely to have large effects on trade flows.

In the specific case of passenger vehicles, the falling prices that are likely to result from a reduction of trade protection might also bring environmental benefits if they encourage a shift towards newer cars. As nearly 50% of vehicles are older than 10 years and 22% older than 20 years, a fleet renovation has significant potential to reduce emission levels (World Bank, 2016[17]). The use of old vehicles without modern pollution filters is one factor behind high PM2.5 pollution levels of six times the WHO recommended threshold of 10 μg/m3 in Buenos Aires, three times in Córdoba and twice in Mendoza.

### *For producers, trade improves access to intermediate inputs and capital goods*

With respect to companies and employment, the effects of lowering trade barriers generally combine medium-term benefits with short-term adjustment costs. Just like consumers, firms gain improved access to intermediate inputs and capital goods. Simultaneously, they also face fiercer competition on their output markets, an issue that will be discussed in the next section.

When firms are constrained in their choice of using imported inputs, they are likely to pay higher prices and may even have to source lower quality inputs. The same applies to capital goods used in the production process. Lower trade barriers will bring down prices and raise the quality of these inputs. This may be the result of rising imports, but also of the reaction of domestic producers to rising competition. Many domestic producers of intermediate goods would react to the stronger foreign competition by upgrading their production processes and improving their products, and only the least productive ones would lose market share (Amiti and Khandelwal, 2013[18]; Topalova and Khandelwal, 2011[19]; Pavcnik, 2002[20]). Hence increased import competition will not necessarily imply a strong substitution of domestic intermediate inputs and capital goods by imports.

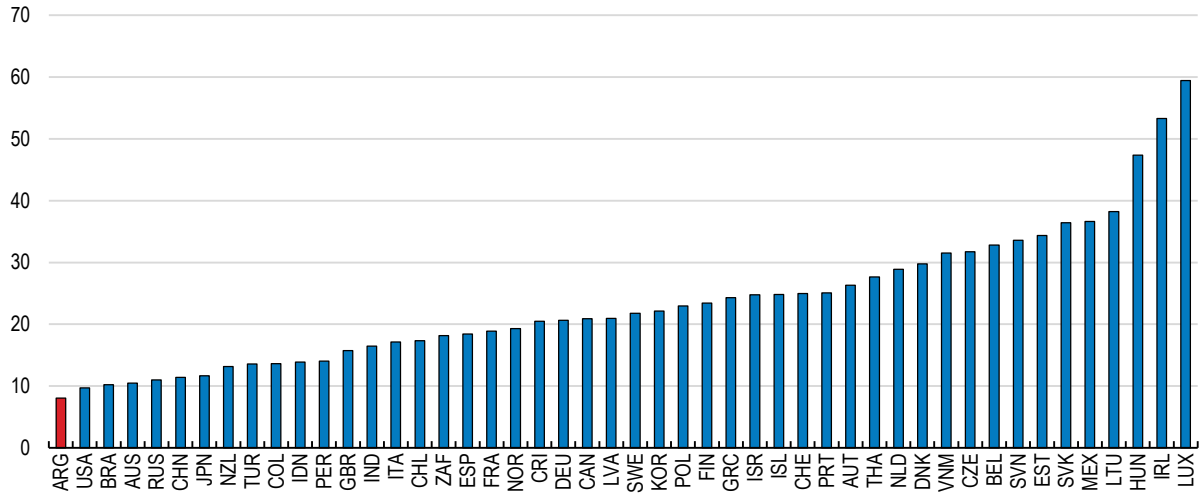
Improved sourcing options for intermediate inputs and capital goods lowers production costs and may allow domestic firms to upgrade their production processes through technology embedded in new machinery (Amiti and Konings, 2007[1]). Moreover, there is evidence that increased importing activities of firms can help building foreign networks and acquiring knowledge about foreign markets, which is crucial for increasing export activities (He and Dai, 2017[21]; Blalock and Veloso, 2007[22]).

Due to high tariffs and non-tariff measures on intermediate inputs, Argentinian firms import –on average– a much lower share of their intermediate inputs than producers in other countries (Figure 1.13). Looking across firms, evidence for Argentina suggests strong links between the use of imported inputs, productivity and export propensity (Brambilla, Depetris Chauvin and Porto, 2017[23]; Bas, 2012[24]). Firm-level analysis conducted for this report also finds a significant positive relationship between the use of imported intermediate inputs and total factor productivity of Argentinian firms (Annex 1.A2). Moreover, firms that use technology licensed by a foreign company have a 2.3%

higher total factor productivity, emphasising the importance of reducing import barriers for facilitating technology diffusion.

**Figure 1.13. Firms use few imported intermediate inputs**

Share of imported intermediate inputs over total inputs (in %)




*Source*: OECD Trade in Value Added (TiVA) data base (September 2018).

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Looking across sectors and exploiting variation in input tariffs over the past 20 years in Argentina, evidence suggests that whenever a sector experienced a reduction in input prices, this came along with higher employment, production and value added (Box 1.1, Annex 1.A1). Using these estimated relationships for simulation analysis suggests that a reduction of input tariffs by 50% is associated with an average 7% increase in sectoral employment, whereas production and value added increase by 5% and 7%, respectively (Figure 1.14). Furthermore, the increased access to cheaper and higher quality foreign inputs is associated with an even larger increase of gross exports as well as exports in value added terms by 18% and 19%, respectively. These results are in line with existing firm level evidence for Argentina (Bas, 2012[24]). Output or value added per worker, however, is not affected much, as sectoral employment increases about the same amount as production or value added.

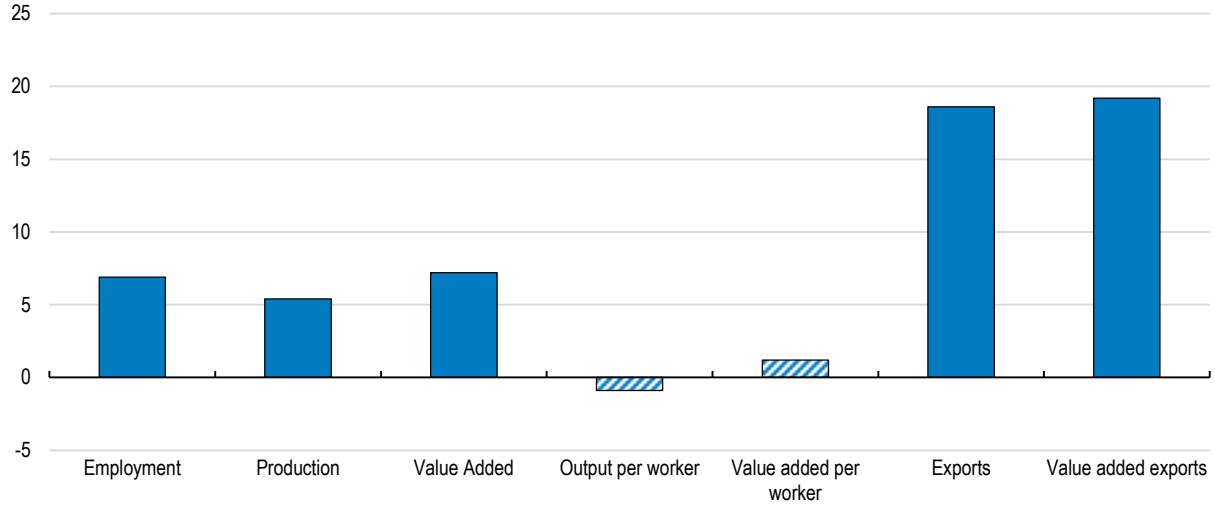
**Box 1.1. A brief description of the industry-level analysis**

To investigate how sectoral economic activity and exports have reacted to changes in input tariffs, this chapter uses a balanced industry panel dataset from 1996 until 2016, which provides information on sectoral input tariffs, employment, production and value added as well as several indicators for the integration into global value chains. The data set is based on the OECD Trade in Value Added (TiVA) database and does not only include natural resource and manufacturing sectors (18), but also 18 services sectors (34 in total). Average intermediate input tariffs for each of the 34 sectors are calculated using data from the OECD on import tariffs for intermediate products as well as detailed data on input use by sector.

For further analysis investigating the effects of output tariffs on economic activity, the data are combined with data on average output tariffs by sector. These only exist for the natural resource and manufacturing industries and are taken from the OECD database for the years 1996 until 2016. For a more detailed description of the data and the methodology, see Annex 1.A1.

**Figure 1.14. Reducing input tariffs boosts economic activity and exports**

Increase of economic activity and exports (in %) when average input tariffs are cut by 50%




*Note*: The simulations are based on a partial equilibrium exercise whereby the 50% input tariff cut is simulated at the sample average of input tariffs for the latest available year in the sample (2016). Shaded bars indicate that the coefficient that underlies the simulations is not significant at the 5% level.
*Source*: OECD calculations based on OECD TiVA.

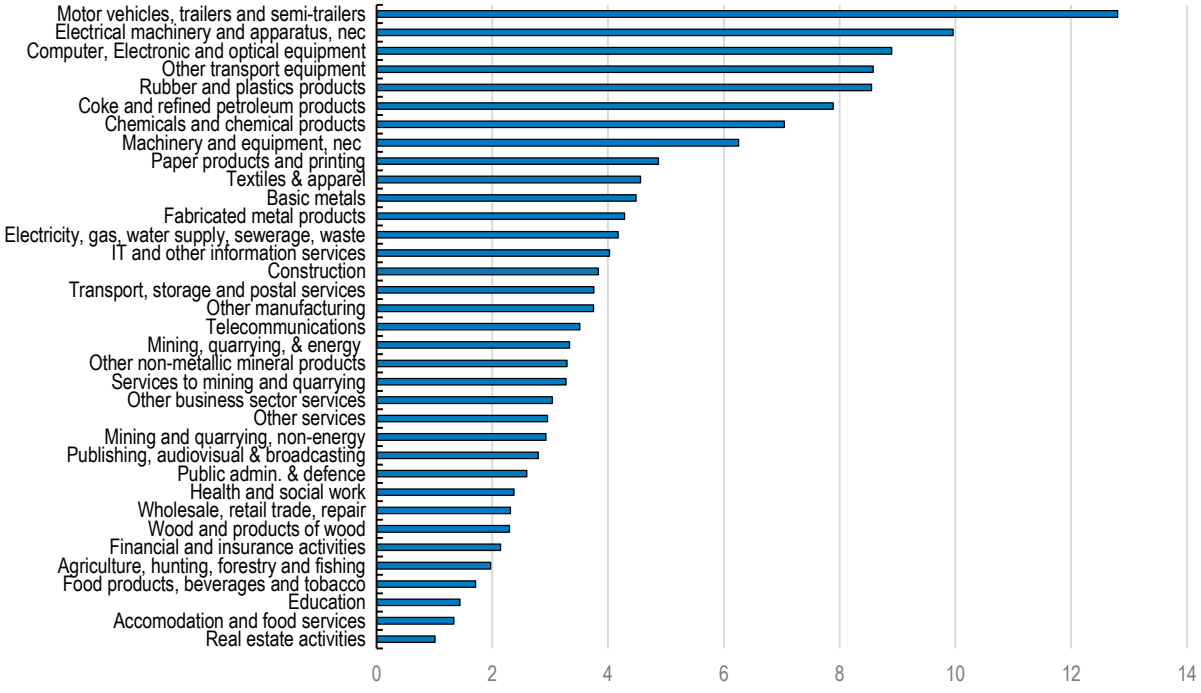
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These results draw only on variation within industries across time and are not driven by any unobserved industry specific characteristics. Additional analysis using tariff variation across industries supports these results and suggests that industries facing lower average input tariffs have higher labour productivity and pay higher wages. This is in line with earlier work using firm level data, which finds that Argentinian exporters are around 40% more productive and pay 31% higher wages than non-exporters (Brambilla, Depetris Chauvin and Porto, 2017[23]).

The link between lower input tariffs and higher output and exports is significant across economic sectors, but tends to be higher in those sectors that make more use of imported inputs (Figure 1.15). For example, motor vehicles, electrical machinery as well as computer, electronic and optical equipment use more imported intermediate inputs and stand to gain more from a reduction in input tariffs than other sectors.

**Figure 1.15. The use of imported inputs varies across sectors**

Share of imported intermediate inputs in total sectoral production (in %)




*Source*: OECD Trade in Value Added (TiVA) data base (September 2018).

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### *Trade can stimulate competition and raise productivity*

Besides the productivity enhancing effects through the input side, the disciplining effect of import competition in the same sector would force companies to reduce inefficiencies, upgrade their production processes through more advanced technologies, increase product quality and reduce high prices that result from low domestic competition (Amiti and Khandelwal, 2013[18]; De Loecker et al., 2016[25]). This could lead to substantial gains in productivity, and it does not necessarily imply a massive substitution towards imports. It rather leads to a revitalising effect on the more productive domestic firms, while some low-productivity firms would leave the market, freeing resources for the more productive ones to grow (Melitz, 2003[26]; Pavcnik, 2002[20]).

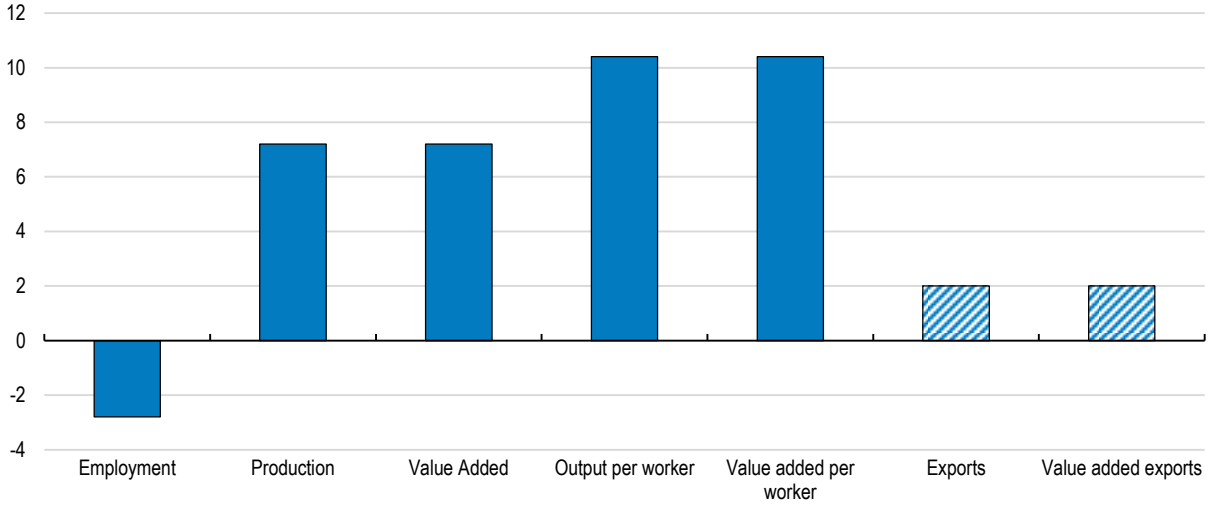
Just as some firms lose domestic market share in the face of stronger integration and may eventually leave the market, others seize newly arising export opportunities, expand and hire new workers. It is precisely this reallocation process that will allow capital and labour to flow to more productive sectors or firms where new and better-paying jobs can be created (Brandt, Van Biesebroeck and Zhang, 2012[27]; Criscuolo, Gal and Menon, 2014[28]; Criscuolo and Timmis, 2018[29]). A significant share of productivity growth in advanced economies can be attributed to these reallocation effects (Hsieh and Klenow, 2009[30]). For Argentina, estimates suggest potential productivity gains on the order of 50-60% (Busso, Madrigal and Pagés, 2013[31]).

Evidence based on the variation of trade protection for different industries over the past 20 years confirms the negative link between productivity and protection for Argentina, (Box 1.1, Annex 1.A1). Simulations based on these estimations suggest that on average, a reduction of output tariffs by 50% would be associated with a 10% increase in sectoral labour productivity (Figure 1.16). This productivity increase translates into 7% higher output and value added. Unless the demand curve has changed, this would suggest that prices have dropped or quality has improved.

In a few industries like textiles, wearing apparel, footwear and other transport equipment, employment has contracted as trade protection lessened. Although all other industries slightly increase sectoral employment in reaction to lower import protection, this explains a small average employment decrease of around 3%.

**Figure 1.16. Decreasing output tariffs boosts productivity, but can reduce employment in a few sectors**

Average increase of economic activity and exports (in %) when output tariffs are cut by 50%

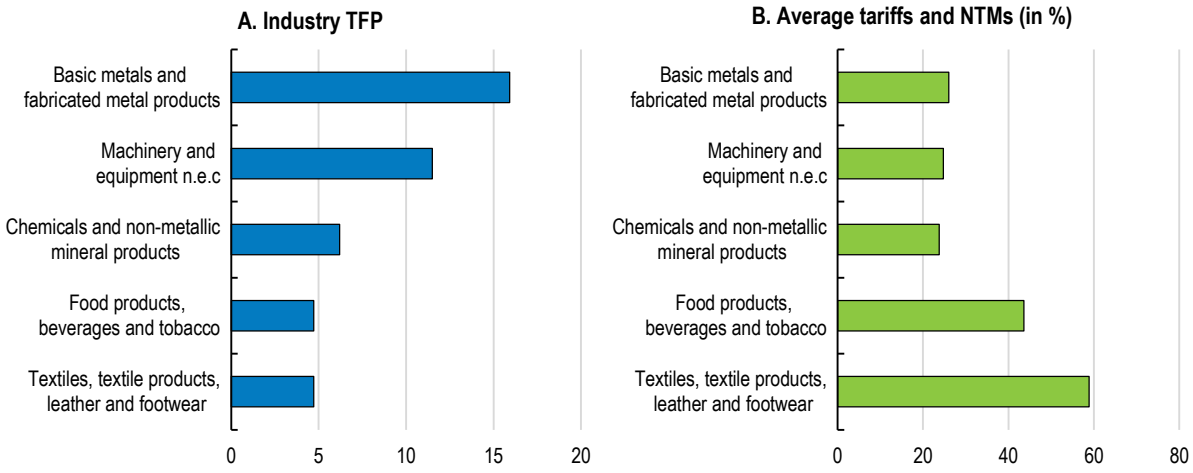



*Note*: The simulations are based on a partial equilibrium exercise whereby the 50% output tariff cut is simulated at the sample average of output tariffs for the latest available year in the sample (2016). Shaded bars indicate that the coefficient that underlies the simulations is not significant at the 5% level.
*Source*: OECD calculations based on OECD TiVA and tariff data from WITS.

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Evidence from firm-level data is also consistent with the international evidence that shielding domestic producers from foreign competition tends to cement existing industry structures and hampers the reallocation of resources towards their most productive uses, both across sectors and across firms within sectors (Box 1.2). First, total factor productivity (TFP) of firms is lower in industries that are protected by higher tariffs (Figure 1.17).

**Figure 1.17. Productivity is low in sectors with high trade protection**




*Note:* Panel A shows weighted averages of total factor productivity (TFP) within the industry in 2017. Panel B shows the sum of average tariffs and non-tariff measures (NTMs) by industry (in %).
Source: OECD calculations based on the World Bank Enterprise Survey 2006, 2010 and 2017. Data on tariff is from the Ministry of Production and Employment (June 2018) and data on non-tariff measures from (Cadot, Gourdon and van Tongeren, 2018[13]).

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**Box 1.2. A brief description of the firm-level analysis**

Firm-level data for Argentina and the years 2006, 2010 and 2017 from the World Bank Enterprise Survey is used to estimate the total factor productivity (TFP) of firms. Sector-specific production functions are estimated using information on revenue, employment, capital and intermediate input use, and employing the estimator suggested by Levinsohn and Petrin (2003). The residuals of the estimated production functions are taken as a measure for total factor productivity (TFP). To make the TFP estimates comparable across industries, they are standardised by the industry mean. The TFP estimation was only feasible for five aggregated industries, as the sample does not include sufficient information on firms in other industries (Annex 1.A2.).

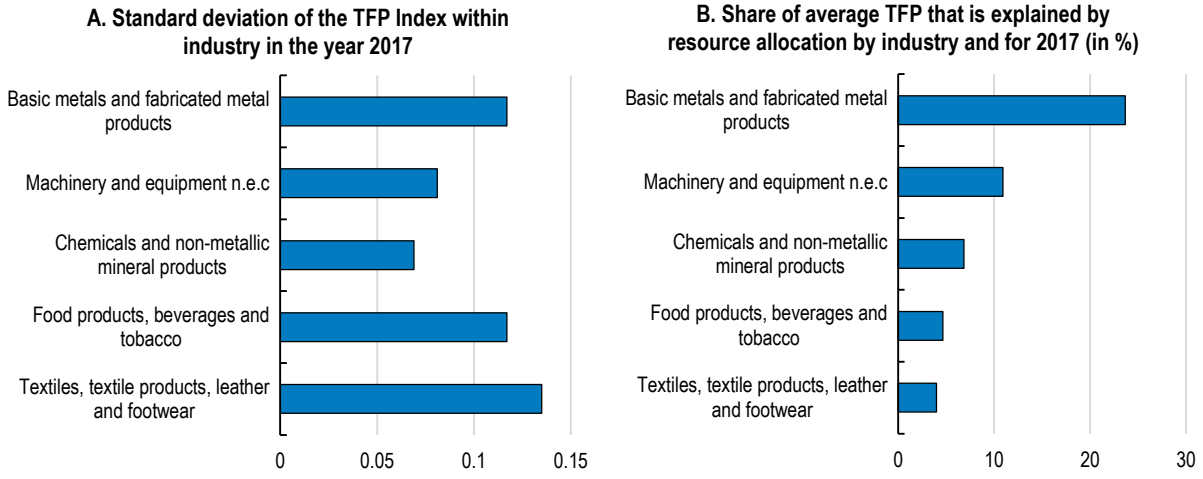
Moreover, sectors with higher trade protection are also characterised by a larger dispersion of total factor productivity across firms (Figure 1.18). For example, in the textile, leather and footwear industry, where tariffs and NTMs have a combined level of protection of around 60%, many low-productivity firms co-exist with more productive ones. The sector is also characterised by a low allocative efficiency.

A quantitative measure of how much the allocation of resources across firms contributes to aggregate productivity is the decomposition suggested by Olley and Pakes (1996). In this decomposition, the covariance term measures allocative efficiency, or the extent to which firms with greater efficiency have a greater market share. In the textile, leather and footwear industry, the allocation of resources across firms only explains 4% of average sectoral productivity, which is much lower than in metals where it is 24%. This indicates that in the textile, leather and footwear industries resources are trapped in low-

productivity firms, while they should move to more productive usage in higher productivity firms.

This analysis suggests several things. For one, exposing this sector to stronger external competition would not affect all firms in the same way. Stronger competition would likely drive some low-productivity textile firms out of the market, but at the same time, the high productivity dispersion suggests that there are also firms in the sector that could probably withstand foreign competition. External competition would lead these to reduce inefficiencies, upgrade their production processes through more advanced technologies, increase product quality and create new job opportunities (Pavcnik, 2002[20]; Melitz, 2003[26]).

**Figure 1.18. Protected sectors have dispersed productivity and low allocative efficiency**




*Note*: Panel B shows the results from an Oley-Pakes-Decomposition of average total factor productivity (TFP) of industries into the part that is explained by the simple average of firm level TFP and the part that is explained by resource allocation across firms within an industry. The share that is explained by resource allocation is a commonly used measure for allocative efficiency in the sector. A more detailed description of the methodology can be found in Annex 1.A3.
*Source*: OECD calculations based on the World Bank Enterprise Survey.

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Hence, if the sector were to face stronger competition from imports, the first expected reaction would be a movement of labour and capital towards more productive firms in the same sector. The disciplining effect of import competition could even provide opportunities for the most productive textile firms to start exporting to niche markets in advanced economies. As the high informality in the upper segment of the supply chain has so far complicated the establishment of a modern supply chain management, increasing external pressure to introduce quality control and certification systems could be key to open new export markets. This could end up providing new employment opportunities within the sector.

All this said, it is still possible that some textile workers may have to seek employment in other sectors, which may require new skills and appropriate income support. This calls for comprehensive education and training programmes for displaced workers, which should be closely coordinated with the private sector and focus on future skill needs. Moreover, effective income support and social protection for displaced workers, including those in

the informal sector, are crucial for the success of the re-training programmes. However, given the strong heterogeneity of Argentinian textile firms, often cited fears of a complete shutdown of the sector with massive employment losses are not at all supported by the empirical evidence.

### *The general equilibrium effects of stronger integration are positive*

The effects of trade policy changes tend to affect almost all parameters of an economy due to numerous feedback effects. One attempt to capture these effects is to undertake simulations in a computable general equilibrium model. Such models can capture the input linkages between economic sectors and also model markets for production factors, which are mobile across sectors. Thus, tariff changes affecting output in one sector also have repercussions on other sectors by changing the demand and prices for inputs and production factors. Moreover, these models also capture the feedback effects of changing income of workers and relative prices of goods and services on private consumption as well as the interlinkages of disaggregated sectoral trade flows.

To analyse the economy wide effects of a reduction in import protection for Argentina, simulations have been undertaken using the OECD METRO model, which links 61 countries and 57 economic sectors (Annex 1.A5). Simulations suggest that lowering currently applied tariffs to the lowest levels among G20 countries would reduce input costs, increase production and exports and lead to rising real wages for workers. Total exports would increase by 4.7%, while total imports rise by 3.5%, indicating that the competitive pressure on domestic producers reduces prices, but does not lead to a strong substitution towards imported inputs and final goods. Total domestic production increases by 0.5% and real GDP by 0.3%.

Importantly, as the tariff cuts lead to increases in total production and labour demand, real incomes increase for workers of all skill categories. In particular, unskilled workers benefit from lower trade barriers, as their real incomes rise by 1%, largely on the basis of nominal wage improvements. The real labour income of clerks, service assistants, technical professionals, professionals and managers rises by around 0.5%.

However, there is considerable heterogeneity in how the tariff reductions affect different economic sectors (Table 1.2). The model simulations suggest strong benefits for the motor vehicles and the non-ferrous metals industries, largely due to lower intermediate input costs (Annex Table 1.A5). Automobile production could increase by around 10% and exports by almost 15%. Other expanding sectors are agricultural and natural resource sectors and food processing. Demand for services would also rise, allowing expansion in transportation and professional business services, for example. All expanding sectors increase their labour demand for workers of all skill types and absorb the jobs shed in the shrinking sectors (Annex Table 1.A6). The sectors that may see moderate contractions are the textile and wearing apparel, the metal products, electronic equipment and the machinery and equipment industries.

**Table 1.2. Unilateral tariff decreases would boost production in agricultural and some manufacturing industries**

Changes in sectoral production in reaction to a unilateral tariff cut (in %)

| Sector | Percentage change (in %) |
|---|---|
| Cereal grains | 2.3 |
| Other agriculture | 0.6 |
| Oil seeds | 1.8 |
| Dairy | 1.0 |
| Natural resources | 0.9 |
| Meats | 0.5 |
| Food and beverage | 1.7 |
| Textile and wearing apparel | -1.4 |
| Mineral products | -0.3 |
| Ferrous metals | 1.2 |
| Nonferrous metals | 7.8 |
| Metal products | -1.9 |
| Motor vehicles and parts | 9.6 |
| Transport equipment | -0.3 |
| Electronic equipment | -0.9 |
| Machinery and equipment | -2.0 |
| Other manufacturing | 0.5 |
| Transportation | 1.4 |
| Communication | 0.6 |
| Financial services | 0.5 |
| Insurance | 0.8 |
| Business services | 0.9 |
| Other services | -0.3 |

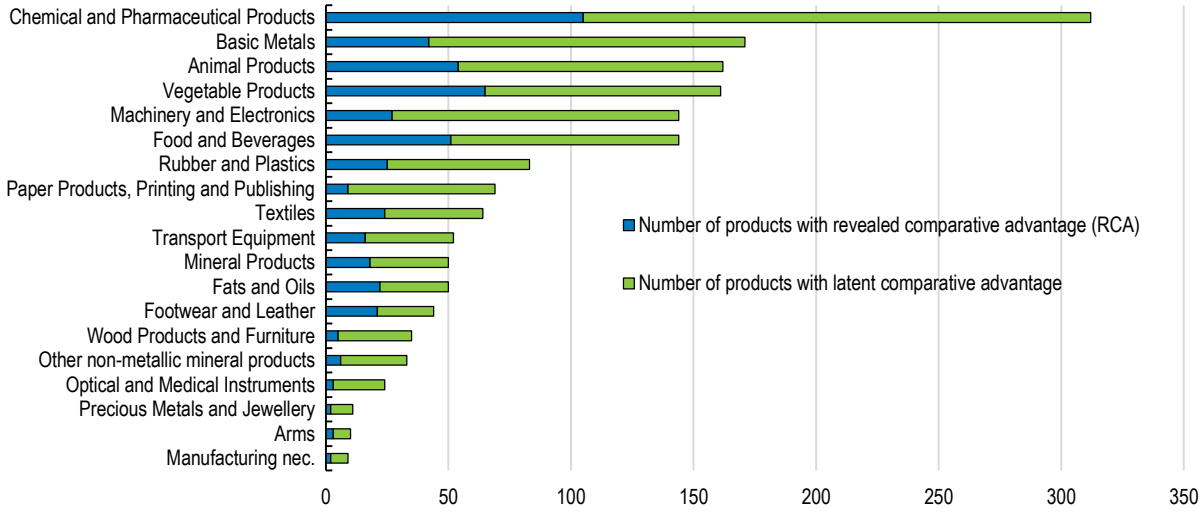
*Note*: The results show the percentage change in sectoral production in reaction to a tariff cut in all sectors to the lowest levels among G20 countries.
*Source*: OECD calculations based on the OECD Metro model.

### *Trade can generate new export opportunities*

As the economy integrates better into global trade, new export opportunities can emerge in sectors where Argentina has so far not had a strong export performance. A more competitive level of the currency and better access to inputs in the context of a potential trade reform should support these opportunities. Argentina's comparative advantage is obviously strong in products that are intensive in natural resources, e.g. agricultural and food products, but it is far from confined to low-value-added activities. A detailed look at the economy's revealed comparative advantage (RCA), which measures how much a country exports of a given good relative to an average country, shows that at the product level, Argentina has revealed comparative advantages across many different industries (Figure 1.19). This applies to chemicals, pharmaceuticals and basic metals, but also machinery, rubber and plastics. Building on existing industrial clusters, and in particular the accumulated knowledge and skills, there are many opportunities for further diversifying the production system.

**Figure 1.19. Argentina has high potential in many products**

Number of HS 6 digit products with revealed and latent comparative advantage by industry




*Note*: A country has a revealed comparative advantage in the production of a product, if it exports relatively more of this product than an average country in the world. The graph shows the number of HS 6 digit products where Argentina has a revealed comparative advantage. The number of products with a latent comparative advantage is computed using network analysis and computing distances between products (Hidalgo et al., 2007[32]). Products with a latent comparative advantage are products that are close to products (in terms of skills and capital necessary to produce them) for which Argentina already has a revealed comparative advantage.
*Source*: (García Díaz and Dragún, 2019[33])

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Two of the recent success stories of the Argentinian economy have been evolving without strong protection or large industry subsidies. Argentinian wine makers have seized the opportunities of a stable macro-economic environment and low import protection in the 1990s to invest in new production methods and machinery and diversify their product lines (Artopoulos, Friel and Hallak, 2013[34]). Adapting to changing tastes in the major export markets and building on the strong comparative advantage of Argentinian soils, they increased their exports from 1993 to 2008 from USD 25 million to USD 650 million.

The second example concerns the impressive success of the Argentinian knowledge based services sector, whose exports grew from USD 151 million in 1996 to USD 6.5 billion in 2015 (Gayá, 2017[7]). The sector is dominated by small and medium size firms, which due to a good digital infrastructure are relatively spread out over the country (58% are in the greater Buenos Aires area), and have the potential to reduce regional disparities. Although there have been some stimulating incentives for parts of the sector through tax deductions (ley de software), the impressive dynamic is not explained by these incentives (Gayá, 2017[7]; Oliveira, 2018[35]). Firms in this sector have built on the comparative advantages of Argentina in high skilled labour with good knowledge of English and a similar time zone with the United States.

### *More integration will attract export-oriented foreign direct investment*

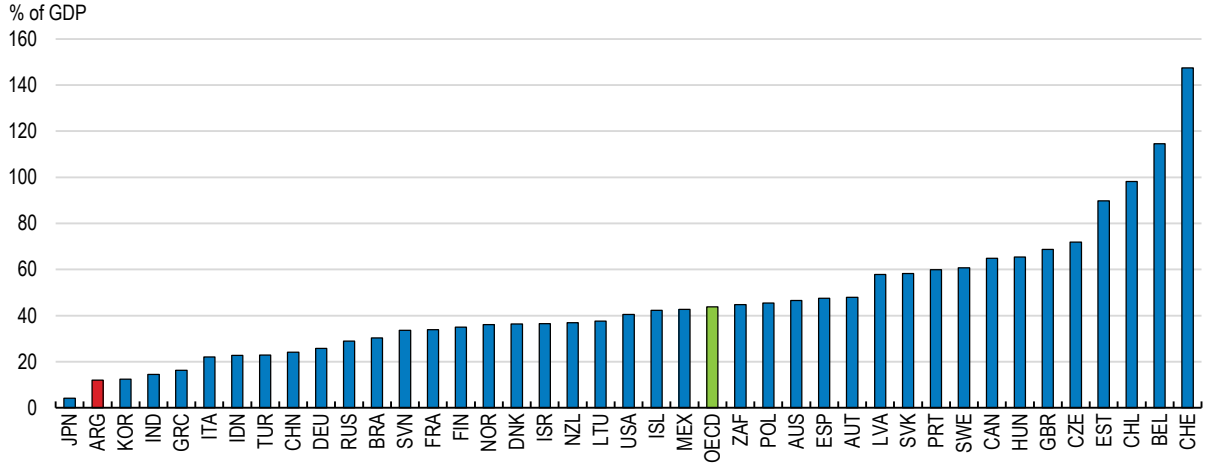
Foreign direct investment is an important source of external financing, but also key to increase the integration of the economy into global value chains. In many emerging

markets, supplying the domestic subsidiaries of foreign multi-national enterprises is one of the most promising ways for many small and medium size enterprises to increase their forward integration into global value chains (López González, 2017[36]). This can act as a conduit for knowledge transfer and learning, enable domestic firms to adapt new technologies, production methods or better management practices and contributes to stronger productivity performance (Arnold, Javorcik and Mattoo, 2011[37]; Blalock and Gertler, 2009[38]). On the other hand, foreign direct investment also increases the use of foreign intermediate inputs in the domestic economy which stimulates knowledge and technology spill-overs raising productivity and exports of domestic firms (Lopez Gonzalez, 2016[39]).

In contrast to its high tariff and non-tariff barriers, Argentina has low restrictions on foreign direct investment (FDI) and ranks far below the OECD average according to the OECD FDI regulatory restrictiveness index. Nevertheless, during the last decade it has attracted far less foreign direct investment inflows than other Latin American countries such as Mexico or Brazil (Figure 1.20). The main reasons are macroeconomic and political instability, low infrastructure quality and high trade barriers. Other key factors that influence the stock of foreign direct investment are labour costs, institutional quality (corruption, the rule of law), skills or intellectual property protection (Cadestin, Gourdon and Kowalski, 2016[5]).

**Figure 1.20. Argentina attracts little foreign direct investment**

Stock of foreign direct investment as a share of GDP for the year 2017 (in %)




*Source*: CEPAL; and OECD FDI main aggregates database.

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The objective behind incoming foreign direct investment influences its effects on the domestic economy. Foreign firms that conduct market-seeking investments are mainly focused on supplying the domestic market, often enticed by comparatively high prices, as has been the case of Argentina. In contrast, when foreign firms undertake efficiency-seeking investments, they benefit from the comparative advantage of a country, e.g. its natural resources, the supply of high skilled labour, or its institutional arrangements, which enables them to be more competitive and export to international markets. Because competition is higher in international markets, firms undertaking efficiency-seeking

foreign direct investment have a strong incentive to use high quality inputs and capital goods as well as the most advanced technologies for their production. This explains why knowledge and technology spill-overs as well as productivity, employment and trade effects on the domestic economy are much higher for efficiency-seeking investments than for market-seeking investments (Barrientos, Gereffi and Rossi, 2011[40]).

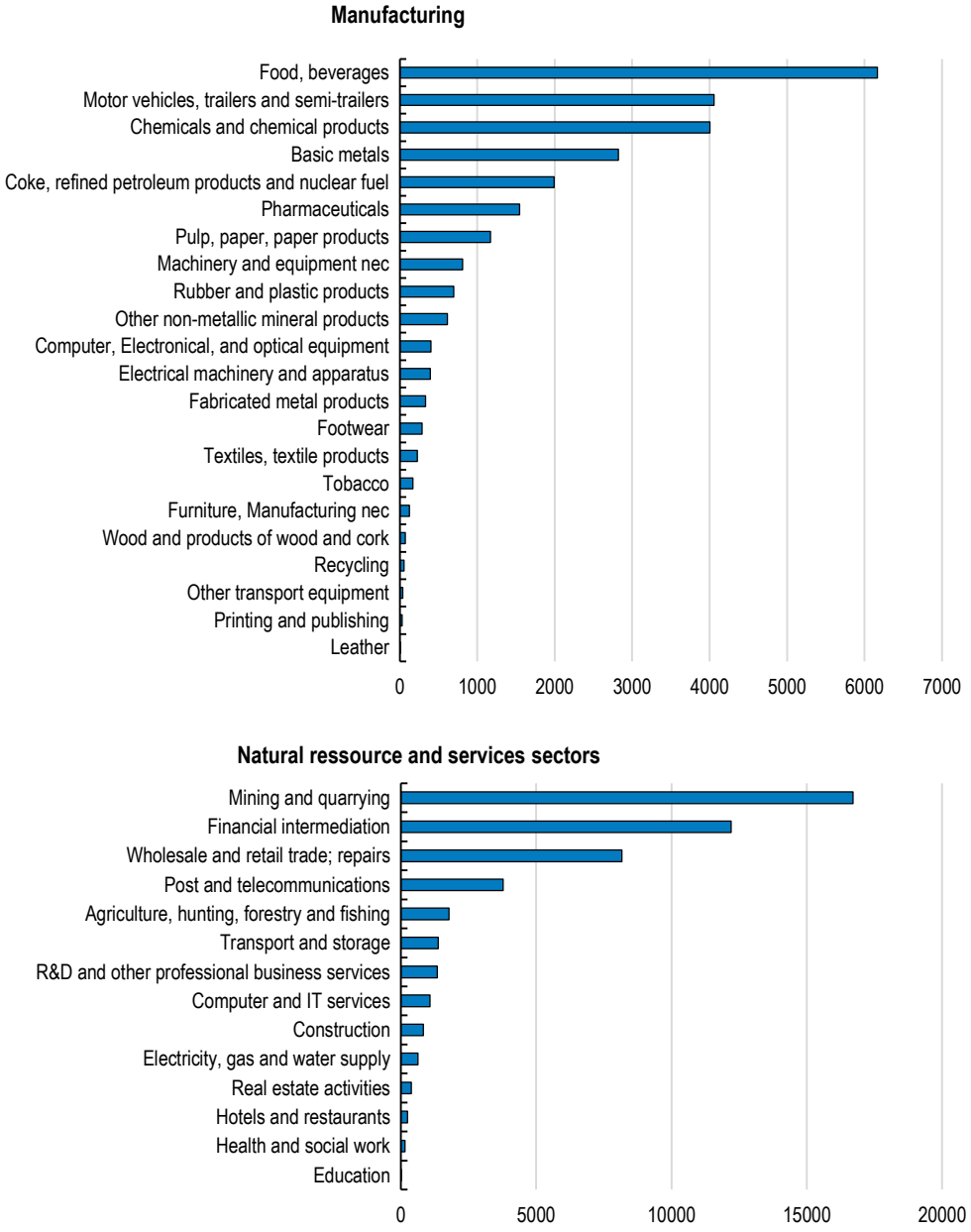
As market-seeking foreign direct investment focuses exclusively on the domestic market, it is attracted by protection of domestic markets which increases domestic prices and the economic rents for producers. In contrast, efficiency-seeking investments, which heavily depend on imported intermediate inputs and capital goods, are sensitive to high import barriers. When analysing the sectoral composition of the stock of foreign direct investment in Argentina for the year 2017, it appears that foreign direct investment flows in the last decade have been mostly targeting sectors with relatively high import protection, e.g. motor vehicles, pharmaceuticals, chemical and metal production (Figure 1.21). However, Argentina has also attracted foreign direct investments in sectors where it has a relative comparative advantage, such as food and beverage, the mining industries including oil and gas extraction as well as refined petroleum products.

Empirical analysis conducted for this chapter suggests that FDI inflows into specific sectors in Argentina since 2005 have tended to increase in reaction to higher import protection (Annex 1.A4). This indicates that foreign direct investment flows to Argentina are mainly oriented to the domestic market, possibly because they exploit the economic rents that are created through high import protection. As this type of foreign direct investment provides lower potential for technology and knowledge spill-overs to the domestic economy compared to efficiency-seeking investments, a reduction in import barriers might allow Argentina to attract more export-oriented foreign direct investments, which would have strong positive effects for productivity and employment (Barrientos, Gereffi and Rossi, 2011[40]).

Argentina has the potential to become an attractive destination for efficiency-seeking foreign direct investment. A convenient time zone with respect to US or Europe, which is crucial for companies requiring real time communications with customers or headquarters, and good English language skills among tertiary graduates are strategic advantages not fully exploited by international companies so far. Especially, the professional business services, IT and software services are attractive sectors that are already booming in Argentina, but do not receive large amounts of foreign direct investment. Other promising sectors for further foreign direct investment are the mining and energy sector including oil and gas extraction and renewable energies, the petrochemical industries as well as agriculture and the food and beverage industries.

Moreover, some of the industries that have been growing due to high import protection might also start being attractive for efficiency-seeking foreign direct investment. For example, the pharmaceutical and medical instruments industry has been growing strongly and is already exporting to many other Latin American countries. However, for these protected industries as for other industries to flourish in the future and to attract efficiency-seeking investments, it is key to reduce import protection and enable the access to a larger variety of cheaper and higher quality inputs.

**Figure 1.21. Stock of foreign direct investment by sector in 2017 (in Million USD)**




*Source*: Banco Central de la República Argentina (BCRA) (2018).

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Furthermore, to attract more and higher quality foreign direct investments, it is crucial to ensure longer-term macro-economic and political stability. It is also important that the 2017 tax reform will be implemented over the next five years, as the current distortive and unfair tax system continues to be one of the main obstacles for doing business in Argentina (Schwab, 2018[41]). A strong and decisive commitment to strengthen the rule of law and fight corruption would help to increase the trust in government institutions, especially as in recent months the public procurement and infrastructure planning system of the previous government has been exposed to large scale corruption accusations.

Moreover, improvements in the efficiency of the legal and judicial systems to settle disputes are necessary, as this continues to be signalled by investors as an important impediment to do business in Argentina (Schwab, 2018[41]).

Finally, the recent real depreciation of the Argentinian peso has considerably increased the international competitiveness and attractiveness of Argentina for foreign direct investment and may present a good opportunity for attracting more and new forms of investments (Figure 1.23).

## Trade policy options for fostering stronger integration into the global economy

Defining a concrete policy agenda for integration requires a reflection on the different options for trade policy reform, given Argentina's current agreements and obligations. It will also require thinking about the role of international trade negotiations. Finally, finding the right sequencing can matter significantly to maximise the benefits of trade.

### *Space for lowering trade protection with and without Mercosur partners*

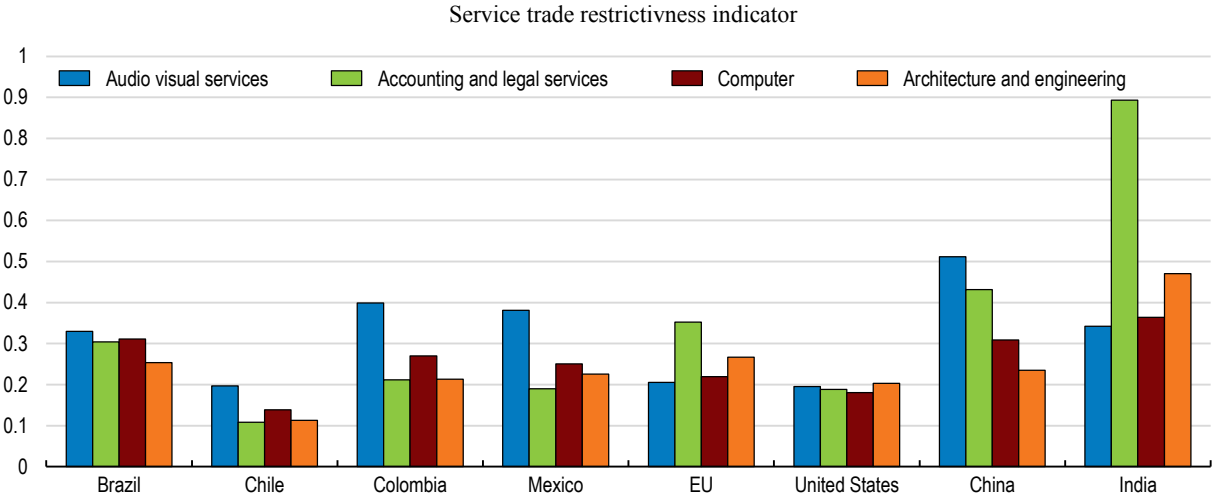
Argentina is a member of the MERCOSUR trade bloc, which has helped to strengthen trade linkages with the other members, in particular Brazil. At the same time, the exchange of goods and services with the rest of the region is weak (IMF, 2017[42]). Bilateral trade negotiations between MERCOSUR and external trading partners would be an obvious way forward as they allow achieving better market access in return. Tariffs faced by Argentinian exports average at 4.12%, but this number hides substantial heterogeneity. Some promising export markets for Argentinian agricultural and food products like China and India levy average applied tariffs on food and beverages of 12% and 65%, respectively. Besides tariffs, Argentinian exports also face particularly high non-tariff measures with an average ad-valorem equivalent of around 20% (Cadot, Gourdon and van Tongeren, 2018[13]).

Historically, the MERCOSUR has not pursued an active strategy of seeking new trade agreements with other countries. It has only signed bilateral agreements covering about 10% of world GDP. For comparison, Peru and Chile have already signed trade agreements covering about 70-80% of world GDP. The traditionally passive stance of the MERCOSUR has changed recently, with trade negotiations ongoing or planned with the European Union, the Andean Community, the Pacific Alliance, South Korea and Canada. A successful trade agreement with the European Union, in particular, could make a big difference as it would imply integration with a large and competitive economic space, but an agreement is not yet in sight, not least due to European resistance in agriculture.

Argentina should play a leading role in these initiatives, as lower trade barriers in current and potential export destinations could provide a significant boost to Argentina's exports. In particular, efforts should also focus on reducing non-tariff measures in export markets, as these are especially burdensome for agricultural and food products as well as other main export products from Argentina (Box 1.3). Items of interest to Argentina include quantitative import restrictions, the harmonisation of product standards between countries or the mutual recognition of certification systems for product quality assessment (Maskus and Wilson, 2001[43]).

Negotiations should also include services sectors. IT, software and other professional business services account for 10% of total exports in goods and services and face significant service trade restrictions in major export markets as well as potential markets (Figure 1.22).

**Figure 1.22. Argentina's services exports face high barriers in its main current and potential export markets**




*Source*: OECD Services Trade Restrictiveness Index (STRI) Database.

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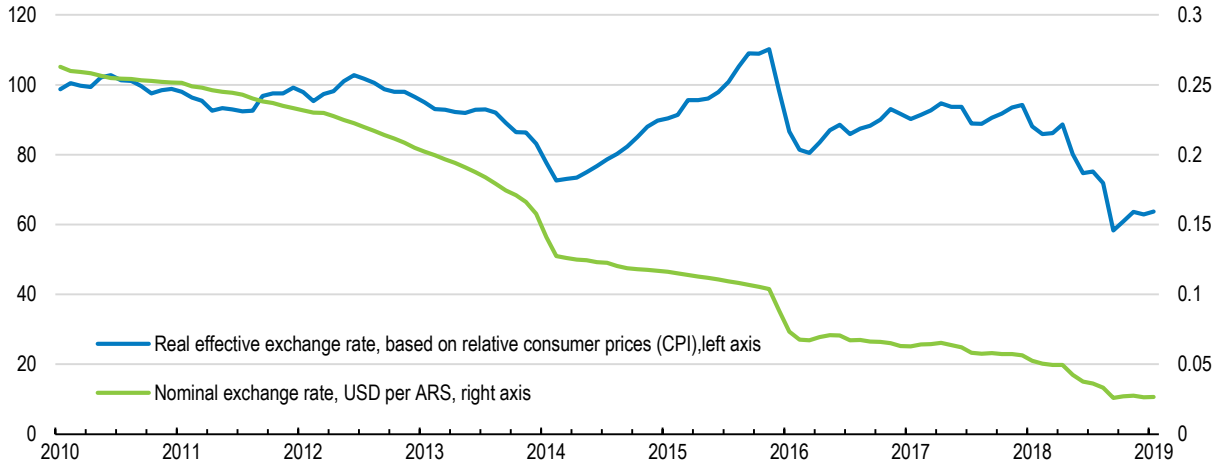
At the same time, the sometimes glacial pace of trade negotiations and the risk that they may not lead to a significant agreement at all implies that pursuing only bilateral negotiations could be a risky bet. Argentina cannot afford to hold its breath for the conclusion of a major bilateral trade agreement. Given how closed the economy is and how large the potential benefits of stronger integration into the global economy are, efforts to lower trade barriers should go beyond bilateral negotiations. Many Asian countries as well as Chile pursued a strategy of liberalising unilaterally in addition to regional and bilateral agreements, with tariffs often reduced for the purpose of attracting investment (Baldwin, 2006[44]).

In the short term, Argentina has several main avenues for reducing its own trade barriers. First, Argentina could use its margin for tariff adjustment within the current MERCOSUR agreement. Member countries have the right to undertake unilateral changes to common tariffs in about 30% of tariff lines, which –if chosen strategically– could have a major impact (Olarreaga and Soloaga, 1998[45]). Second, the MERCOSUR agreement does not preclude member countries from changing its non-tariff measures (Bown and Tovar, 2016[46]). Third, Argentina could work together with MERCOSUR trading partners to evaluate the scope of consensus for specific unilateral reductions of the bloc's common external tariff.

### *Finding the best sequencing*

A quick materialisation of positive effects and the minimisation of adjustment costs depend crucially on finding the best sequencing of policy reforms. However, while some trade reforms may not be part of a possible first set of measures, these should not be pushed into the far future as the current macro-economic environment provides a unique opportunity for a reduction in import barriers. The real depreciation of the currency has increased the international competiveness of Argentinian firms, which mitigates substantially the adjustment costs that some sectors and firms would face due to increasing import competition (Figure 1.23).

**Figure 1.23. The real devaluation has increased competitiveness**




*Note*: A decrease in the real exchange rate signals that that the USD prices of Argentinian products decreased relative to prices of foreign products (left hand scale), implying that the Argentinian economy has gained competitiveness in international markets. The right hand scale shows the value of the nominal exchange rate in USD per ARG Peso.
*Source*: OECD ADB database.

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In light of the strong empirical evidence underpinning the benefits of better access to inputs, sectors providing key intermediate inputs to other parts of the economy, but also capital goods, should be a first priority. This would benefit all sectors of the economy and in turn help to boost exports, as with expanded access to modern technology embodied in foreign inputs local companies can become more productive and competitive in global markets (Amiti and Konings, 2007[1])

Scaling back non-tariff measures such as non-automatic import licenses could also be frontloaded, as these measures are particularly non-transparent and the effective protection resulting from such measures sometimes even exceeds tariff rates. Moreover, Argentina has the power to remove non-tariff measures without delay and without consulting with its partners. This opens space for a thorough revision of non-automatic import licenses with a view towards limiting them to a minimum, for example to areas where public health concerns exist.

Reducing tariffs in intermediate sectors and eliminating most non-tariff measures would be an obvious first step, and could happen immediately. In the current fiscal context, it is important to bear in mind that this would not result in significant fiscal losses as total tariff revenues currently amount to around 0.7% of GDP and the productivity effects of better integration would likely lead to an expansion of activity and additional tax revenues. Estimations conducted for this report indicate that reducing current trade barriers to the average levels of the regional peers Chile, Colombia and Mexico, would lead to a yearly increase of GDP per capita by around 1.3% over the next ten years (Table 1 in Key Policy Insights).

Furthermore, some intermediate inputs and capital goods that are not produced in Argentina are subject to import protection. For example, the government has recently reduced tariffs for some selected intermediate and capital goods with high technology

content and no domestic production to about 2%. For these type of products, the adjustment costs of fully eliminating import barriers would be minimal. The temporary admission regime, which allows firms to import inputs without paying tariffs in case the final product is exported, is a step into the right direction, but should be extended to firms producing for the domestic market.

Sectors that do not provide major inputs into other activities, including the textile sector which employs a large fraction of the low-skilled workforce often in informal work conditions, could instead be subjected to a gradual, pre-announced and steady reduction of protection. That would encourage firms to upgrade their technologies and become more competitive. Communicating a clear and credible time line for phasing out trade barriers could be a useful instrument, although it may be hard for policy makers to make credible commitments to lower protection. To the extent possible, international commitments, for example in the context of bilateral negotiations, could be leveraged for this purpose.

In the meantime, policies should be put in place to mitigate the social impact of lower trade barriers in the remaining sectors, particularly those where overall employment may decline and workers may need to move to other sectors. This may require new skills, and training policies geared towards workers in sensitive sectors hold large potential to smooth the transition. Putting in place such active training policies may have a high pay-off independently of trade policy reforms, as some sectors where employment losses are conceivable, such as textiles and apparel, have a high share of informal employment. Better training could allow some of those employed there to find formal employment in other parts of the economy.

After some transition period, a gradual and pre-announced elimination of tariffs and NTMs for final consumption goods can do much to raise productivity and real wages in Argentina, both through the emergence of new job opportunities and through declining consumer prices, with particularly visible benefits for poorer households.

### *Increasing market access for Argentinian exports*

Parallel to these unilateral reductions in import barriers, Argentina could bilaterally negotiate lower barriers in its export markets due to non-tariff measures, e.g. product standard regulations and enforcement (Box 1.3). Recent successful negotiations with China about the market access of Argentinian meat show that there is large scope for such bilateral negotiations (Clarin, 2018[47]). Further opening the Chinese market for Argentinian food products would strengthen exports, employment and value added creation in the Argentinian food processing industry.

Another good example is the end of a 16-year long ban of Argentinian lemons and lemon products in the U.S. which was negotiated by the Argentinian government in 2017 (Polansek, 2017[48]; Jouanjean, 2012[49]). This is a major opportunity for the production of lemon and lemon juice in the Northern provinces of Argentina supporting regional employment.

Additional firm-level analysis conducted for this report finds that Argentinian firms with an internationally recognised quality certification for their products have on average a 2.1% higher total factor productivity compared to firms without such a certification (Annex 1.A2). This emphasises the potential benefits from improving the domestic quality testing system and obtaining international recognition for the quality assessment certifications issued by the Argentinian authorities.

### Box 1.3. Product standards and their enforcement might pose significant barriers to Argentina's exports to advanced economies

Non-tariff measures (NTMs) like product standards and technical regulations have increased in importance in advanced countries compared to tariffs that are at historical lows (Baldwin and Evenett, 2009[8]). Although product standards are imposed to overcome market failures and protect the health of domestic consumers, they can act as significant import barriers, in particular for exports from emerging markets (Maskus and Wilson, 2001[43]). Recent empirical research suggests that product standards and their enforcement have also been used to protect industries in advanced economies (Trefler, 1993[50]; Essaji, 2008[51]; Grundke and Moser, 2019[11]).

Argentina's exports have also been subject to refusal of market entry due to non-compliance with product standards in the U.S. and the EU (Figure 1.24). Although the number of refused shipments per se does not inform about the refused trade volume, the negative reputation effects of import refusals on other firms in the same export sector are substantial and lead to reduced market access and decreasing exports (Jouanjean, Maur and Shepherd, 2012[52]; Grundke and Moser, 2019[11]). This particularly affects exporters from emerging markets highlighting the necessity of a comprehensive approach to upgrading product standards systems and building compliance capacity, focusing on sectors rather than individual products. This also entails establishing a system of product quality assessment, which provides certificates that are recognised by the enforcement authorities in export markets.

**Figure 1.24. Argentina's products face issues with product standard regulations in its main export markets**

Number of Argentina's product shipments refused entry into important export markets due to non-compliance with product standard regulations




*Note*: The EU RASFF database only publishes EU import refusals and notifications for food and animal feed products. Thus, any other manufacturing products are not included in the database. The US FDA database includes information on import refusals of food products, pharmaceuticals, cosmetics, medical devices and a wider range of electronic products.
*Source*: RASFF database for EU refusals and US FDA Import Refusals Report (IRR) database for US refusals.

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In the U.S., Argentina mainly faces market access issues for its exports of pharmaceuticals and medical devices (Table 1.3). The main reasons for these import

refusals are issues related to certification requirements or product labelling. Thus, it seems that no fundamental problems in the production structure exist that would impede Argentina to produce the necessary product quality for U.S. markets. A comprehensive initiative of the Argentinian government to support domestic producers of pharmaceuticals and medical devices should comprise a close cooperation of the Argentinian authorities for product quality assessment with the U.S. Food and Drug Administration. This should aim at reducing information and compliance costs for domestic producers, concerning certification, listing and labelling requirements. This would be a much more cost efficient and effective support for this industry than the high import barriers that still exists for medicaments and medical instruments (which hurt domestic consumers and increase the costs of the public health system in Argentina).

**Table 1.3. Pharmaceuticals and medical devices from Argentina have difficulties to enter the US market due to certification issues**

Five most refused product categories and five most frequent reasons for Argentinian products that have been refused entry into US markets (2002-2018).

| Five most refused product categories | Number of shipments refused (products) | Five most frequent reasons | Number of shipments refused (reasons) |
|---|---|---|---|
| Other medicaments, except antibiotics and hormones | 201 | It appears the drug or device is not included in a list as required by the FDA. | 220 |
| Medical instruments, machines and other medical device | 128 | The article appears to be a new drug without an approved new drug application. | 188 |
| Fresh and dried fruits, fruit and vegetable juices | 119 | It appears that the manufacturer has not filed information on its scheduled process as required. | 135 |
| Skin care and make up | 41 | Required label or labelling appears to not be in English | 127 |
| Hormones and insulin | 29 | The article appears to consist in whole or in part of a filthy, putrid, or decomposed substance or be otherwise unfit for food. | 92 |

*Note:* The US FDA database includes information on import refusals of food products, pharmaceuticals, cosmetics, medical devices and a wider range of electronic products.
*Source*: US FDA IRR database.

In the EU, nuts, meat and animal feed products from Argentina have particular issues entering the EU market (Table 1.4). Policy efforts to increase market access to the EU should mainly focus on improving the sector specific systems for product quality controls. Non-compliance of one exporting firm can hurt the reputation of the whole sector and have significant negative effects on exports to the EU.

**Table 1.4. Some food products from Argentina have difficulties to enter the EU markets due to non-compliance with EU product standards**

Five most refused product categories and five most frequent reasons for Argentinian products that have been refused entry into EU markets (2002-2018).

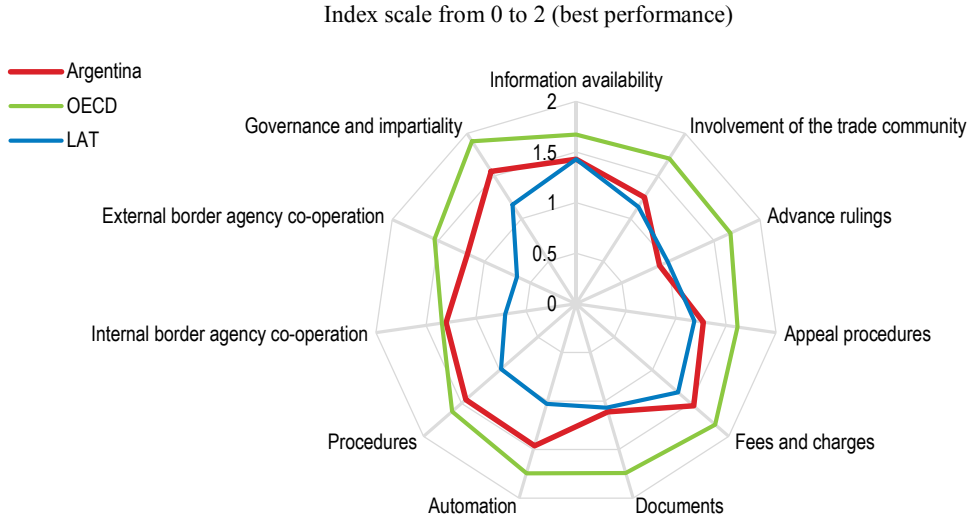
| Five most refused product categories | Number of shipments refused (products) | Five most frequent reasons | Number of shipments refused (reasons) |
|---|---|---|---|
| Nuts, nut products and seeds | 499 | Aflatoxin content too high | 502 |
| Meat and meat products | 164 | Salmonella in product | 146 |
| Animal feed materials | 134 | Shigatoxin content too high | 63 |
| Fish and fish products | 88 | Bad temperature control | 41 |
| Fruits and vegetables | 78 | Substance not authorised by EU authorities (mostly genetically modified) | 35 |

*Note:* The EU RASFF database only publishes EU import refusals and notifications for food and animal feed products. Thus, any other manufacturing products are not included in the database.
*Source*: EU-RASFF database.

Since 2016, the government has worked closely with the private sector to identify priority products and destinations, generate information about potential barriers and define a strategy to negotiate foreign market access. Since January 2016, market access for 160 products has improved in more than 40 countries. These efforts have recently been complemented by a national export strategy ("Argentina Exporta"), which among other areas features a newly created national product quality system to ensure compliance of products with product standards in export markets. Other items in the agenda include access to finance, infrastructure, trade facilitation, export promotion and the dissemination of best practices through corporate networks.

In this context, Argentina should try to make further advances in trade facilitation, which could reduce costs for exporting firms significantly (Figure 1.25). Administrative burdens on exports and imports are higher than in Brazil, Chile or Mexico and the efficiency of customs and border clearance in Argentina has strongly decreased during the last decade, according to World Bank's Logistics Performance Index. Harmonising procedures into a single electronic document and consolidating information and certifications from various authorities, such as customs or health and agriculture, can significantly increase efficiency in customs and reduce associated costs (Sarmiento, Lucenti and Garcia, 2010[53]).

**Figure 1.25. Trade facilitation can be improved**




*Note*: Data is for the year 2017.
*Source*: OECD Trade facilitation indicators database.

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Argentina has already made an important step into this direction by lancing the first implementation phase of an online one-stop shop mechanism for exporting (VUCE), which already includes more than 280 administrative procedures and reduces time spent on these procedures by 65 percent. The full implementation is planned for 2020 (Iglesias, 2018[54]). Continuing to modernise and simplify customs procedures is crucial to improve export performance (Moïsé and Sorescu, 2013[55]). This would also help to reduce the scope for corruption, especially through the establishment of online procedures that eliminate personal interactions. For small firms (with exports up to USD 600 000 per

year), the government has also established a program to simplify export logistics ("Exporta Simple").

Beyond simplifying customs procedures, a cost-effective way for trade facilitation is through more cooperation, both among various agencies of the country as well as with neighbouring and third countries (Figure 1.25). Increasing cooperation with border agencies of other countries and engaging in mutual recognition agreements concerning certifications for product quality assessment would significantly facilitate imports and exports (Box 1.3). Moreover, a systematic sharing of inspection results of product standard enforcement agencies among neighbouring countries would improve the risk analysis as well as the efficiency of border controls and would facilitate intra-regional trade. The Rapid Alert System for Food and Feed (RASFF) established by EU member countries could serve as a good example. Argentina could also benefit from a harmonisation of data requirements and documentary controls among domestic agencies involved in the management of cross border trade, as established in other countries in the region such as Peru and Mexico.

## Easing the transition: Policies to support the structural transformation

It is important to acknowledge that trade opening typically combines strong medium-term benefits, such as more and better jobs, with short-run adjustment costs as jobs will be lost in some firms, sectors and regions, and created in others. Policies can go a long way to reduce the burden of adjustment for poor and vulnerable households and ensure that all Argentinians benefit from trade. In particular, it is crucial that those that may initially struggle with the transition get adequate support so that they can find new employment opportunities. This is also of particular relevance to gain political support for a stronger integration into the global economy.

Policies to ease the transition can have several dimensions. The most urgent one is to protect workers in the transition by ensuring that adequate social protection, but also adequate training opportunities are put in place. These policies also need to consider the regional dimension of the structural transformation, as certain highly protected industries are concentrated in specific regions, e.g. the electronics industry in the province of Tierra del Fuego or the textile industry in the greater Buenos Aires area. The central government should closely coordinate the necessary policies with provincial governments, in particular because provincial governments hold the main authority on education and training policies and hence play a key role in the structural transformation.

Beyond this, structural policies can reduce frictions and facilitate the structural transformation of the economy (Box 1.4). Reducing import protection will entail a significant reallocation of resources, i.e. labour and capital, across sectors and within sectors across firms. Allowing this to happen is a precondition for reaping the benefits of stronger integration. Well-functioning product and labour markets play a key role in this context. Finally, innovation is one of the pillars of long-run productivity and competitiveness, with well-designed policies playing a key role in strengthening the incentives to innovate. The successful implementation of these complementary structural reforms will have a bearing on the magnitude of the adjustment costs that workers in import competing sectors and less productive firms will face in the short run (Winters, Mcculloch and Mckay, 2004[3]).

**Box 1.4. Successful examples of policies to complement the structural transformation**

Episodes of structural transformation across OECD countries can offer valuable insights about how policies can facilitate adjustments to changes in economic structure. The cases of the Basque Country in Spain and the Ruhr area in Germany exemplify how a coherent and stable policy package can facilitate transformation and lead to jobs and opportunities in new areas.

In the 1970s and 1980s, the Basque Country underwent a significant restructuring of its economy following the decline of traditional sectors such as steel, shipbuilding and machine tools, which led to high unemployment. Regional policies put the focus on technological upgrading as a way to restore the international competitiveness of the manufacturing sector. This included strengthening the existing but weak technology infrastructure, promoting R&D activities by firms, creating technology parks and developing training programmes for workers and researchers (OECD, 2011[56]). This strategy, pursued with stability and continuity over time, paid off in the end. The Basque Country now has a strong business-oriented innovation system and has technological strengths in machinery and equipment. Business R&D is double the national average and is also in the top 25% of OECD regions and countries (OECD, 2014[57]). The export performance of the region has improved markedly, driven by goods with a higher technological content (such as aeronautics or telecommunications) and also due to the innovation carried out in traditional industries such as automobile and tool- machinery. Knowledge-intensive services sectors have also gained weight, particularly in areas linked to manufacturing (e.g. engineering and consultancy). The Basque Country is now the region with the lowest unemployment rate in Spain and GDP per capita is 25% above the European Union average.

The Ruhr region used to be one of the most important industrial regions of Europe, with strong coal mining and steel industries. With a shrinking global demand and a loss of international competiveness, the Ruhr area faced the challenge to restructure its economy. To respond to that challenge, regional policies changed the focus towards environmental technology. Enterprises shifted away from coal and steel and invested in plant engineering, control services and environmental technology. The move into the field of environmental technology has its root in the search for new ways to reduce pollution undertaken by traditional coal and steel industries (Galgóczi, 2014[58]). As these industries required significant energy resources and produced a lot of waste, the region benefited from an existing comparative advantage in energy production and waste disposal. Building on that comparative advantage, the focus was on stimulating R&D in the fields of renewable energy resources, recycling and waste combustion. Nowadays, the Ruhr area is the centre of environmental technology research in Germany, underpinned by local universities, research centres and local firms. Labour market policies were also part of the strategy, as agencies specialized in job counselling and training took care of facilitating labour market transitions of affected workers. The change in the employment structure of the area was large; manufacturing and services sectors accounted for 60% and 36% of employment, respectively, at the beginning of the 1960s. By 2000, manufacturing employed 33% and services 65% of the total workforce.

### *Improving training and social protection*

Opening up to the world economy tends to have pro-poor effects in emerging market economies (Porto, 2006[15]). In the medium run, workers stand to gain from new job opportunities, as jobs created in exporting firms are more likely to be formal and to pay better. Argentinian exporters pay 31% higher wages than non-exporters (Brambilla, Depetris Chauvin and Porto, 2017[23]). However, for some workers, reallocations will involve the need to search for a new job. Argentina has high job turnover rates with more than 18% of employees changing jobs within one year (Pieczynski, 2016[59]). Hence, more firm turnover in the adjustment period is probably a manageable burden for those who find new employment in the same sector. However, when entire sectors contract and workers have to learn new skills or move geographically, the adjustment costs may be more substantial.

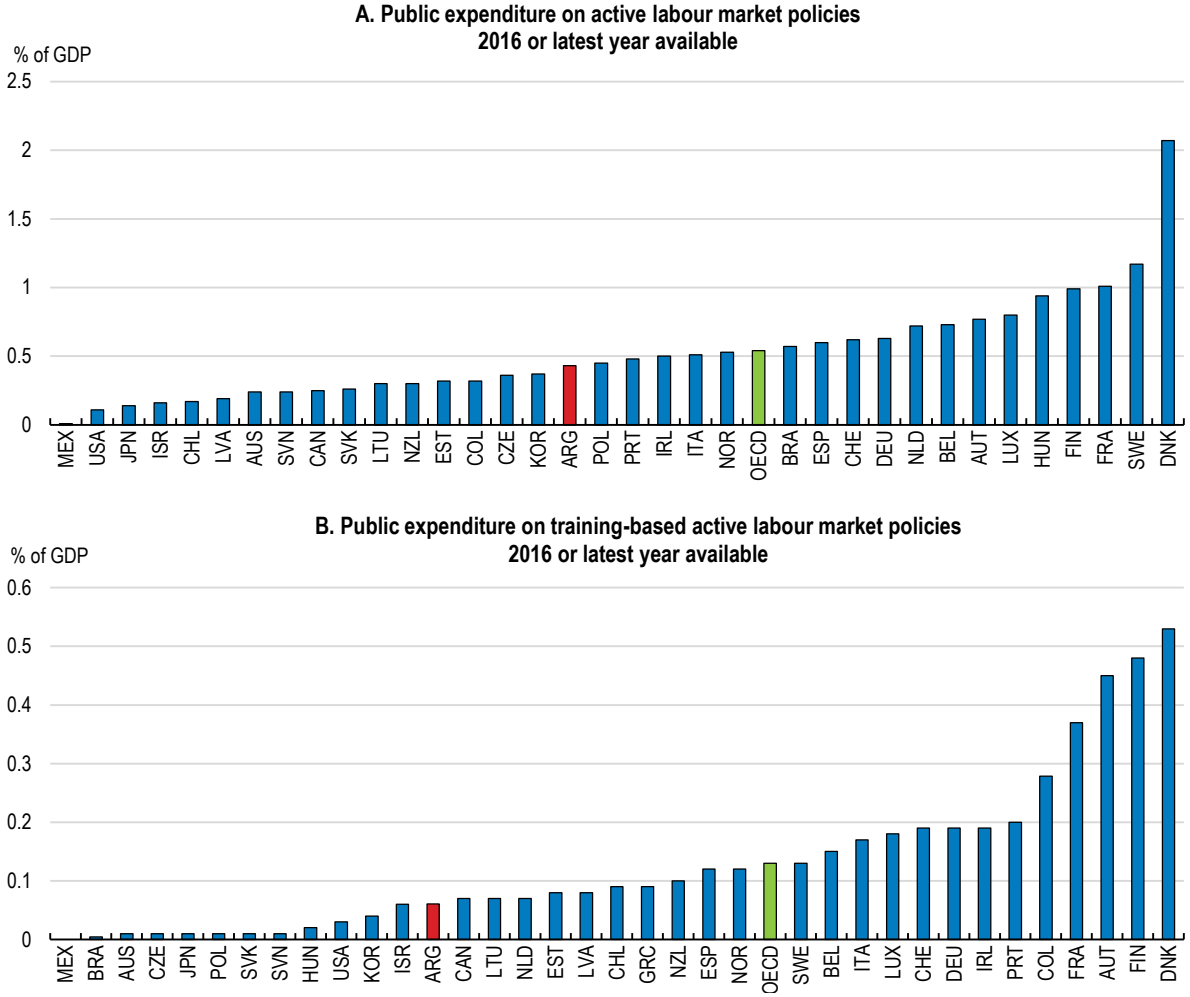
Scaling up active labour market policies and providing training opportunities is a key policy lever in this context. Training can help workers to get ready for new jobs in expanding sectors, and even enhance their chances of accessing better paying jobs. While Argentina spends only slightly less than the average OECD country on active labour market policies, spending is roughly half of the OECD average for training measures (Figure 1.26). Expanding the offer of training opportunities, which should also aim at including adults currently outside of the labour market, may require a need to spend more on adult training. Space for this may be found by reallocating some resources from public works schemes, which make up almost 80% of Argentina's expenditures on active labour market policies (ILO, 2016[60]).

Training policies may have a durable impact on employability by improving the beneficiaries' income-generating potential. Benefits can be significant especially for women (Bergemann and Van Den Berg, 2006[61]). Possible training measures include formal education courses to upgrade general cognitive skills through general education training programmes for adults, as for many low skilled workers the move to other jobs and occupations would require a higher level of cognitive skills (Bechichi et al., 2018[62]). On the other hand, it also entails upgrading and learning new task- and job-specific skills, with the content and the implementation of the necessary training to be closely coordinated with the private sector to address current and future skill needs.

Several Latin American countries, including Chile, managed to make labour market policies more effective by adding an active labour market component, such as training and education, to existing conditional cash transfer programmes (Cecchini and Madariaga, 2011[63]). Cash transfers provide income support in times of need but they can become more effective if supplemented by a training component that improves participants' chances to find more autonomous and sustainable income generation opportunities.

The experience of Argentina with these types of programmes is positive. Empirical evaluations suggest that participation in a scheme combining a cash transfer with training is associated with better wages and higher chances of accessing formal employment (Lopez Mourelo and Escudero, 2017[64]). Thus, expanding such schemes can be an effective way to provide support to those more affected by the reallocation process that the Argentinian economy has started and, at the same time, empower participants to benefit from the new jobs that Argentina will be creating. Recently established cash transfers to adults who return to school or acquire professional training are a step in this direction and have been taken up by 260 000 adults.

**Figure 1.26. Spending on active labour market policies is below the OECD average**




*Source*: OECD database on public expenditure and participant stocks related to active labour market policies; ILO.

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Another recent government programme ("Programa de Transformación Productiva") focuses directly on the consequences of the structural transformation and supports the re-training of displaced workers in cooperation with the private sector and its changing skill needs (Box 1.5). However, this re-training program is so far only financed by the public sector and still has a very low scale.

**Box 1.5. Re-skilling trade-displaced workers**

**The "Programa de Transformacion Productiva" and the reduction in import tariffs for computers and notebooks**

In November 2016, Argentina announced a strong reduction of its tariffs on computers, notebooks and parts, which was implemented in February 2017. This measure increased competitive pressures on the domestic industry and decreased prices by 28% over a few months. Product quality improved due to the imports of higher quality inputs and domestic demand expanded. The move also benefitted the downstream software, IT and professional service sectors.

However, the increased import competition was a major challenge for domestic firms, which employed 4 489 workers in November 2016. The "Programa de Transformación Productiva" played a key role in mitigating the negative employment effects of tariff reductions. Through re-training measures coordinated with six of the most important computer and notebook-producing firms, the workers were prepared for a re-orientation of the companies towards complementary service activities, e.g. technical support, sales and technical assessment. This ensured that none of these firms suffered major employment losses.

Since 2016, the "Programa de Transformación Productiva" has been dealing with 102 companies that work towards a technological upgrade of their production structure (providing financial support as well as training for the work force). It has also supported 1582 displaced workers with a special benefit of 50% of their last salary, labour market search assistance and retraining courses in collaboration with potential future employers. Future employers would also receive employment subsidies equivalent to the minimum wage over the first six month of the contract.

So far, of the 1 582 workers included in the programme around 50% have found a new job. This relatively low rate of re-employment is related to the low level of skills of the mostly older workers in the affected sectors, which indicates challenges related to skills. About nine million workers or around 50% of the total formal and informal workforce have not finished secondary education, and five million have not even finished primary education.

A unilateral tariff reduction would lead to moderate contractions and employment losses in textile and wearing apparel, the metal products, electronic equipment and the machinery and equipment industries (Table 1.2 and Table 1.A.6). For displaced workers, the cost of relocating to other sectors -where production and employment expand following tariff cuts- depends on whether the skill requirements differ between the new and the old job.

Previous OECD work has measured skill distances between occupations and sectors in terms of general cognitive and task-specific skills (Bechichi et al., 2018[62]). This allows an assessment of the amount of retraining required for movements to expanding sectors (Table 1.5). This work suggests that many job changes that would likely occur in Argentina would be towards sectors that require a similar level of cognitive skills and would therefore not require an additional training in cognitive skills. An exception to this are workers currently employed in the textile, footwear and leather industry, which may require retraining equivalent to around half a year of schooling (or about 4 PIAAC skill scores) (Bechichi et al., 2018[62]). As a large part of the workforce in the Argentinian

textile, footwear and leather industries is informal and very low skilled, these estimates, which are based on industry averages across OECD and two non-OECD countries, might be too optimistic about the retraining needs for displaced workers.

Re-training of workers in the other three shrinking sectors would be limited mostly to job- and task-specific skills, requiring close coordination with the private sector. The expanding sectors closest to the shrinking sectors in terms of skill distances are agriculture and other manufacturing sectors. Services sectors would also create more jobs in a more internationally integrated economy, but skill requirements for moving towards services would be higher (Table 1.A.6, Table 1.5). As the analysis does not include detailed measures for the knowledge areas of jobs, the true re-training efforts required for job-changes might be underestimated (OECD, 2018[65]).

**Table 1.5. Retraining needs are mostly limited to task-specific skills**

Based on skill distances between industries in terms of cognitive and task-specific skills and expected job reallocation patterns

| Sectors with likely job losses due to a tariff cut | Three closest expanding sectors in terms of skills | Type of skills needed for the transition |
|---|---|---|
| Textiles, textile products, leather and footwear | Agriculture, hunting, forestry and fishing | Self-organisation skills, accountancy and selling skills |
| | Food products, beverages and tobacco | Cognitive skills: literacy, numeracy and problem solving (distance equivalent to about half a school year);<br>Management and communication skills |
| | Construction | Numeracy skills (distance equivalent to about half a school year)<br>Accountancy and selling, management and communication, self-organisation skills |
| Fabricated metal products | Agriculture, hunting, forestry and fishing | Self-organisation skills, accountancy and selling skills |
| | Food products, beverages and tobacco | Accountancy and selling skills |
| | Transport and Storage Services, Post and Telecommunications | Accountancy and selling, management and communication skills, readiness to learn |
| Electrical and Optical Equipment | Agriculture, hunting, forestry and fishing | Self-organisation skills, accountancy and selling skills |
| | Food products, beverages and tobacco | No major retraining needs expected |
| | Chemicals and non-metallic mineral products | No major retraining needs expected |
| Machinery and equipment | Food products, beverages and tobacco | No major retraining needs expected |
| | Wood, paper, paper products, printing and publishing | Accountancy and selling skills, readiness to learn |
| | Chemicals and non-metallic mineral products | No major retraining needs expected |

*Note*: The four sectors in the left column are the sectors with expected job losses from a cut in tariffs to the lowest levels of G20 countries (see Table 1.2 and Table A.1.6). The middle column shows the three job-creating sectors with the lowest skill distance in terms of cognitive and task-specific skills. Measures for cognitive and task-based skills are based on the OECD Survey of Adult Skills (PIAAC) (Grundke et al., 2017[66]). Cognitive skills include literacy, numeracy and problem solving in technology rich environments. Task-specific skills include ICT skills, managing and communication, accountancy and selling, self-organisation, advanced numeracy as well as readiness to learn. The average skill distances by sector are computed for the whole set of 31 OECD and Non-OECD countries included in PIAAC (Bechichi et al., 2018[62]). The skill distances may underestimate the true re-training effort required for job changes as skill indicators cannot measure all dimensions of skills and knowledge areas required for jobs.

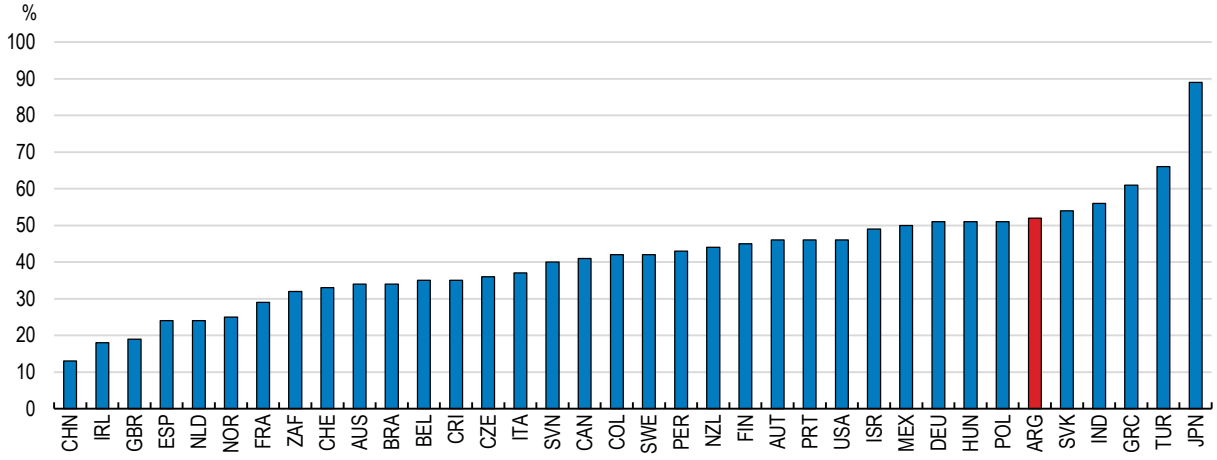
*Source*: OECD calculations based on skill indicators constructed using the OECD Survey of Adult Skills (PIAAC) (Bechichi et al., 2018[62]; Grundke et al., 2017[66]).

The above analysis uses information on the skill requirements of occupations and sectors from the OECD Survey of Adult Skills (PIAAC). As Argentina does not participate in the PIAAC survey, cross-country averages have been used instead. The analysis could be further improved if Argentina were to participate in the next round of this OECD survey.

Industries that are exposed to an increasing penetration of digital technologies require workers to combine good cognitive skills with an increasing ability to self-organise, to work in teams across interdisciplinary and cultural borders and to communicate using new ICT technologies (Grundke et al., 2018[67]). Especially the booming IT, software and professional business services sectors, will require a large amount of workers that can master the challenges of the digital transformation. To address these needs the government has launched an ambitious plan to educate 100 000 new software programmers, 10 000 software professionals and 1 000 software entrepreneurs in 4 years (Plan 111 mil). The plan was closely coordinated with the Argentinian software business association and is adapted to the skill needs of the private sector (recently a new plan to educate 500 000 until 2030 was presented). Such a cooperation with the private sector could be a model for other sectors, where firms have issues to find workers with the right skill mix they need (Figure 1.27). However, as the technological frontier is shifting fast in many sectors, the provision of continuous adult training is also key to master the challenges of the digital transformation (OECD, 2016[68]).

**Figure 1.27. Firms face difficulties finding the skills they need**

Share of firms with difficulties finding qualified staff, 2017




*Source*: Manpower Group (2018).

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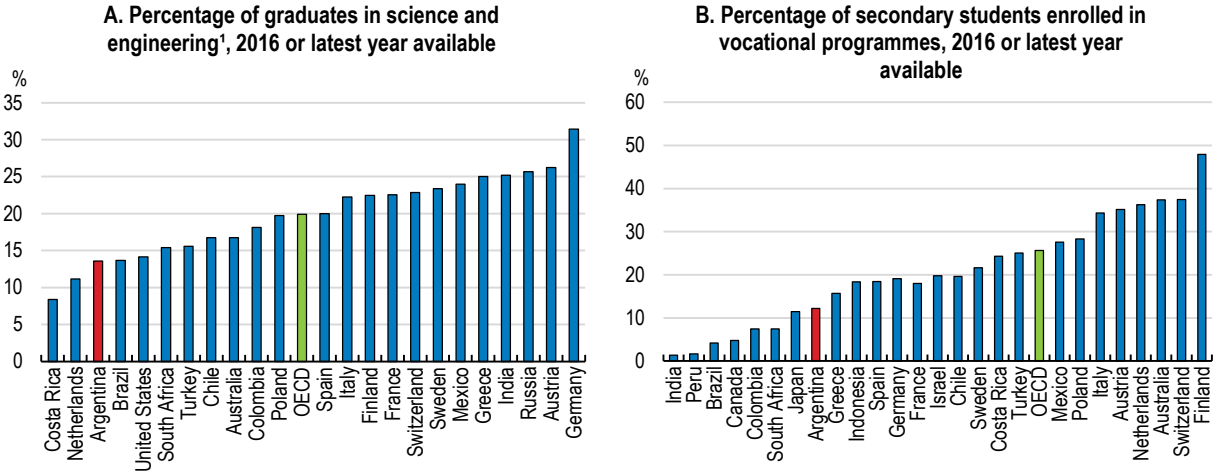
Vocational education and training (VET) remains underutilised, below average levels observed in OECD countries or in Chile or Mexico (Figure 1.28), and is of low quality. At the same time, survey results suggest that employers are finding it particularly hard to find technicians, skilled trades and engineers (INET, 2016[69]). Thus, expanding and enhancing the effectiveness of VET can be particularly useful to address these skill mismatches and to raise workers employability. This would also benefit firms, as equipping workers with the right skills goes along with higher productivity. Additional analysis conducted for this report finds that formal training programmes for workers are associated with a 1.9% higher total factor productivity of Argentinian firms (Annex

1.A2). In addition, offering VET as a less academic option in secondary education can reduce the high-dropout rates in secondary education.

International experience suggests that workplace training and involving employers in the design and delivery of the training are key elements for a successful development of VET (O'Connell et al., 2017[70]). Currently training institutions are the dominant players of the VET system without much engagement of the private sector, and there is little coordination between the large numbers of regional institutions. Increasing coordination between the different training institutions across and within provinces and giving employers a more central role, both in the design of courses and in the delivery of workplace training, would bring the VET system closer to international standards. A recently established programme for young adults (18-24 years) who return to school and in parallel acquire professional training is a first step in this direction.

As in many OECD countries, there is also scope for a better alignment of tertiary education curriculums to the type of occupations prevailing in the labour market (OECD, 2017[71]). Skill shortages are particularly concentrated among engineers and technical degrees and reflect a tertiary education system that produces too few graduates in science, technology, engineering or mathematics (Figure 1.28) (OECD, 2016[68]). To facilitate the alignment of curriculums to the skills required in different occupations, the authorities should consider an update of the outdated Argentinian classification of occupational titles in a joint multi-stakeholder effort including the private sector and worker organisations.

**Figure 1.28. Few students follow technical courses and careers**




1. This includes all the tertiary graduates in the fields of Engineering, Manufacturing, Construction, Natural Sciences, Mathematics and Statistics. Data refer to the latest available year.
*Source*: World Bank World Development Indicators database; OECD Education at a Glance database; and UNESCO Education database.

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A well-functioning social safety net can protect incomes during temporary unemployment spells. Argentina has well-targeted family benefits that support low-income families with children. While these have a significant impact for relieving poverty among families with children, they are insufficient to protect adults against the income losses from temporary income spells.

Unemployment benefits have a limited coverage due to stringent eligibility conditions, with only approximately one in ten unemployed persons receiving unemployment benefits. Benefit levels are capped at EUR 90 per month, around 40% of the minimum wage, and are paid for up to 12 months, or 18 months for those aged above 45. A more potent protection against temporary income losses from dismissals are high severance payments. However, these create disincentives for formal hiring, as the costs of dismissal can be high for employers. Moreover, there is discretionary room for the judiciary to determine the magnitude of these severance payments in each single case, creating uncertainty for employers.

Current reform plans include replacing the severance payment regime by an unemployment insurance system with individual accounts, to which both employers and employees would contribute over time, similar to the one currently used in the construction sector. Chile, for example, has established such a system. This would reduce the financial burden of dismissals as employer contributions are paid over time and could lead to lower disincentives for formal hiring, if only by reducing uncertainty. If account balances could be carried over to a new job, such a system would be an effective way to protect people rather than protecting individual work relationships.

The currently 30% of the workforce that is in informal employment lacks any income support in case of job loss. Therefore, improving incentives for formal employment, both by reducing the costs of formalisation and through more enforcement, is essential for reducing the social impact of future job reallocations.

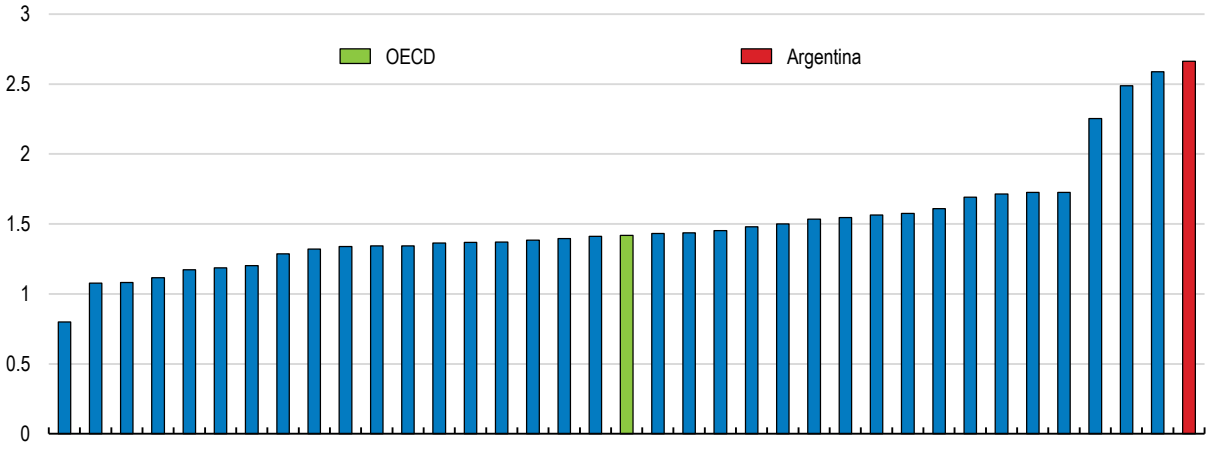
### *Improving the functioning of product markets*

In the context of opening up to foreign competition, it is also important to eliminate policy distortions caused by domestic regulations, to allow new firms to enter and thrive on the domestic market before they potentially export. Regulations of product markets serve a variety of legitimate objectives, but if ill-designed they can impose unnecessary restrictions on competition. Competition, which induces firms to become efficient or exit, has been traditionally weak and poor domestic policies have held back competitiveness of producers, thus impeding them from exploiting their full productivity potential. Regulations can also have downstream effects on non-regulated sectors of the economy that use the output of the regulated sectors as intermediate inputs (Arnold et al., 2016[72]). For example, inadequate regulation of the electricity sector will have effects on other sectors such as manufacturing where electricity is an important input.

The OECD Product Market Regulation (PMR) Indicator and its sub-indicators measure the competition-restrictiveness of product market regulations across a wide range of countries. A recent update of the indicator suggests that Argentina tops the list of countries with respect to the restrictiveness of product market regulations (Figure 1.29). Improving product market regulation fosters competition, which in turn can raise productivity and hence the ability of firms to pay higher wages. By reducing entry barriers, product market reforms can facilitate the emergence of new firms, boosting investment and job creation relatively fast (OECD, 2016[73]).

**Figure 1.29. There is room to reduce the restrictiveness of product market regulations**

OECD Product Market Regulation Indicator 2018 (Preliminary version)




*Note*: The OECD indicators of product market regulation are synthetic indicators that summarise a wide array of different regulatory provisions on product markets across countries, with a focus on the degree to which these regulations restrict competition. They are expressed on a scale from 0 (least restrictive) to 6 (most restrictive). Data are preliminary and refer to 2018. The OECD average shown does not include the United States and Japan.
*Source*: OECD Product market regulation (PMR) database.

Argentina has still the highest barriers to domestic entry in Latin America, well above those in Brazil, Mexico or Chile. This is mainly due to high entry barriers in network and services sectors (Figure 1.30). Regarding administrative burdens for start-ups, Argentina has considerably improved and moved five ranks upward in the cross-country comparison. The new entrepreneurship law (ley de emprendedores) has been an important step into the right direction, as it facilitates firms' start-up by creating a new type of firm, which can be set up in one day. It also comprises setting-up single contact points for issuing or accepting notifications as well as online one stop-shop services, including filing tax declarations online.

Argentina has also considerably improved the procedures for design and assessment of regulation. The complexity of regulatory procedures has been reduced, especially those related to obtaining licences and permits. Regarding the involvement of stakeholders in the regulatory process, Argentina is close to the median in the sample. However, the overall index for simplification and evaluation of regulation shows Argentina at a low rank, because the assessment of regulations regarding their impact on competition leaves still much room for improvement (Figure 1.30). It should be a priority to complement the recent advances in competition enforcement, where the establishment of a new competition authority with greater personal and financial independence and an improved legal framework have been a major step, with a thorough evaluation of existing and future regulations about their impact on competition. More generally, the OECD's Competition Assessment Toolkit (OECD, 2017[74]) can provide guidance not only for identifying but also for revising policies that unduly restrict competition. It also provides interesting examples and case studies from Greece, Mexico, Portugal and Romania.

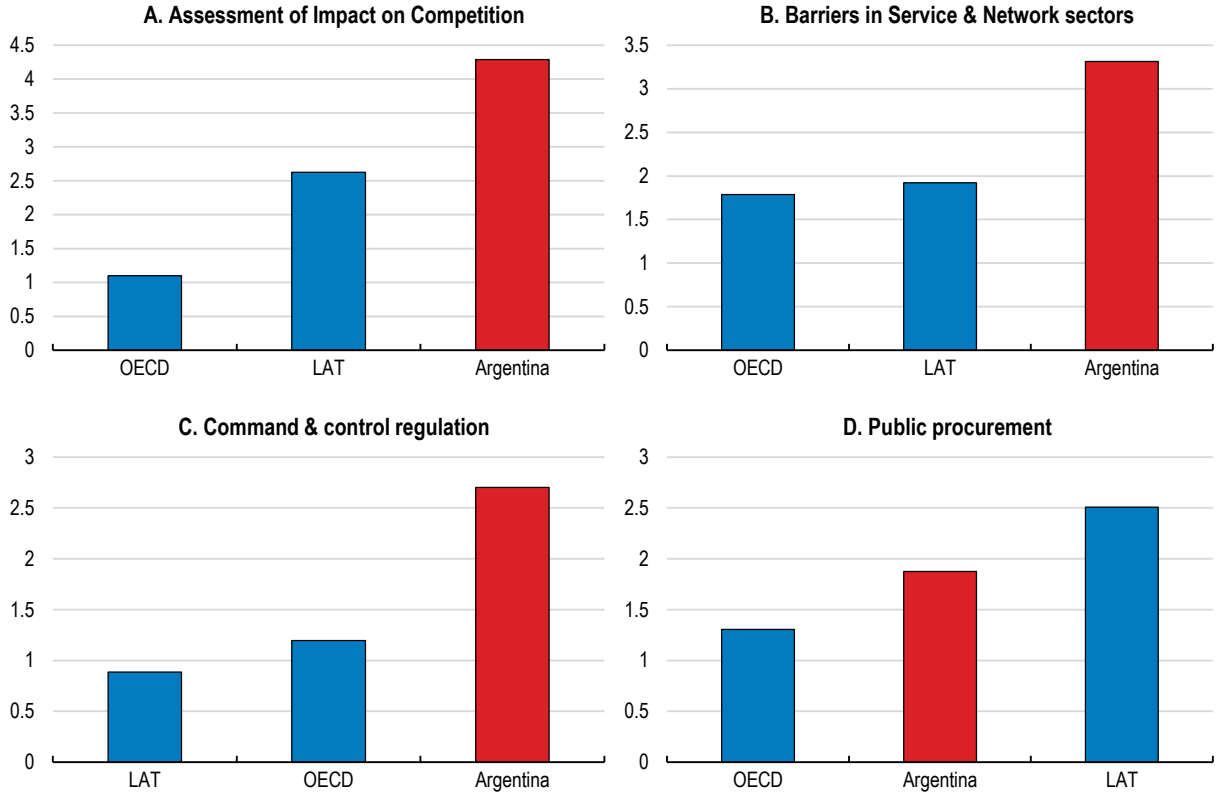
Argentina still performs weakly on the indicator on state involvement in business operations, owing to price controls as well as command and control regulation that interfere in the functioning of markets (Figure 1.30). For example, price controls remain

in place in the retail and the energy sectors and professional services face much stricter regulations than in the average OECD country. The government should continue moving away from coercive to more incentive-based regulation.

However, the new regulations on public procurement have been successful (Figure 1.30). Public procurement of goods and services as well as for public works is organised in transparent public tenders that do not discriminate much more against foreign suppliers than the average OECD country. For example, the elimination of intermediaries for the public purchase of medicaments will likely increase competition among suppliers and lead to significant price reductions. However, recent changes to the law on public procurement introduce local content rules of 20% favouring Argentinian SMEs and improve their chances in public tenders leading to a stronger discrimination of foreign suppliers. The current economic downturn with high interest rates and the recent spikes in utility prices might justify some additional support for SMEs in the short run. However, this support should be temporary as it is likely to raise costs for the government and shields SMEs from the positive effects of domestic and foreign competition.

**Figure 1.30. Product market regulations could allow more room for competition**

OECD Product Market Regulation Indicator (Preliminary version)

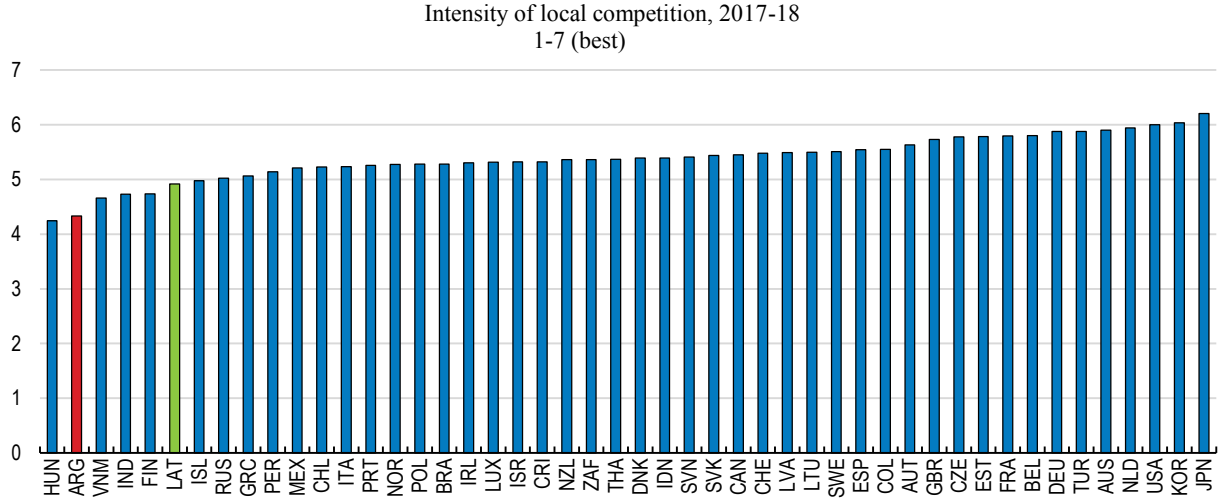



*Note: LAT is the average of Brazil, Chile and Mexico. The OECD average shown does not include the United States and Japan. Data are for 2018, but still preliminary.*
*Source*: OECD Product market regulation (PMR) database.

Furthermore, the existing regulatory framework still fragments the domestic market, as regional and local authorities often impose extra requirements on companies from other

parts of the country. This results in weak competition at the local level (Figure 1.31), contributing to a loss of competitiveness abroad and higher prices domestically. By reducing the scale of production, these barriers also hamper productivity and real wages. At the national level, a comprehensive initiative of the Argentinian government aims at strengthening the wider use of online tools and sharing of information across government agencies to reduce administrative burden and identify regulations that act as impediments to entrepreneurship. Argentina would strongly benefit from including regional and local governments into this initiative, and assess the impact of regulations on domestic and foreign competition. Recent coordination initiatives to promote such dialogue between different levels of governments in federal councils are so far voluntarily and should be made obligatory for provinces and municipalities (OECD, 2019[75]).

**Figure 1.31. Local competition is low**




*Source*: World Economic Forum Global Competitiveness Index Dataset.

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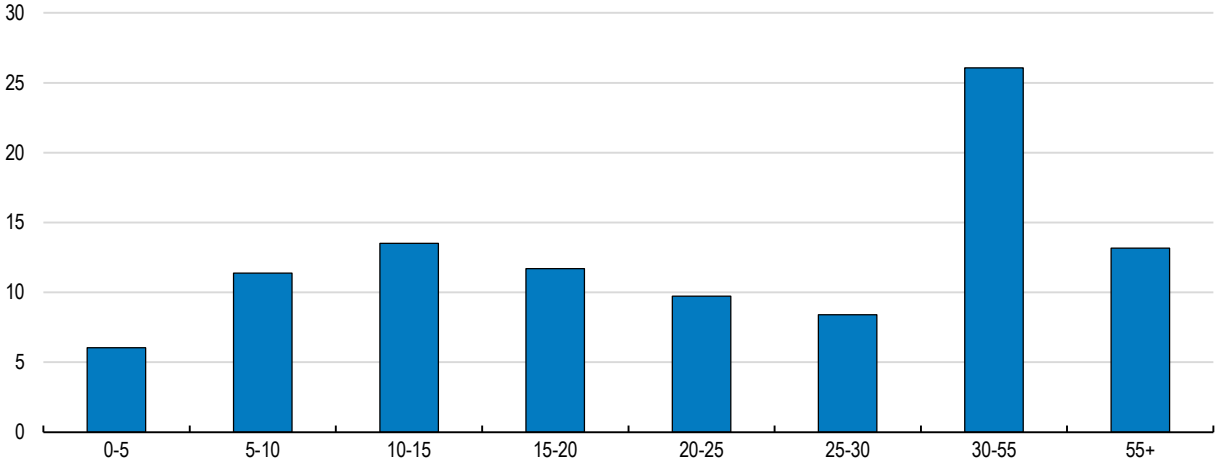
Similar programmes have been set up in some OECD countries such as Australia, Canada and Spain. In Spain, all legal texts enacted by local, regional and central governments are checked for inconsistencies. If they are found to create internal barriers to trade, they need to be amended in the subsequent six months (González Pandiella, 2014[76]). The Council of Australian Governments, established in 1992, has focused on in-depth harmonisation of legislation, standards and regulations among the states. Canada also faces challenges with internal barriers to trade and investment arising from overlapping federal, provincial and territorial regulatory responsibilities regarding many economic policy areas. It established the so-called Agreement on Internal Trade in 1995, an intergovernmental trade agreement according to which parties commit to a set of general rules to prevent governments from establishing new trade barriers and to reduce existing ones.

High barriers to entrepreneurship, and in particularly those deterring entry, can hamper significantly the creation of new firms. In turn, the absence of the disciplining effect of competition from new entrants, firms tend to grow less, remain small and be less productive (Klapper et al., 2006[77]). Some of these features are noticeable in Argentina's manufacturing sector, characterised by a small number of young firms (Figure 1.32). The

average Argentinian firm is 27 years old, well above average ages observed in Latin America (21 years) and OECD economies (17 years) (according to the World Bank Enterprise Survey). OECD work based on cross-country firm level data indicates that young firms create more jobs (Criscuolo, Gal and Menon, 2014[28]). Over the last decade and across all countries analysed, 42% of all jobs were created by enterprises less than 5 years old. In Argentina, only 6% of firms are younger than 5 years.

**Figure 1.32. There are few young firms in Argentina**

Percentage of firms by age group for the year 2017 (in %)




*Source*: OECD calculations based on the World Bank Enterprise Survey 2017.

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Effective insolvency regimes can also play an important role to foster entrepreneurship and productivity (Adalet McGowan, Andrews and Millot, 2017[78]). Argentina's insolvency procedures are in line with the Latin America average but are less efficient than in some regional peers such as Colombia or Chile, or than those found in OECD countries (World Bank, 2018[79]). Improving insolvency procedures, by making them more agile and less costly, would boost entrepreneurship by providing second chance opportunities to entrepreneurs. They can also help to boost productivity and competition by increasing firm creation (Cumming, 2012[80]) and by facilitating the reallocation of capital and financing to new young firms boosting job-creation.

Some measures associated to industrial policies can also curb domestic competition. Industrial policies have had a long history of protecting and subsidising specific industries in Argentina. Such policies can easily stand in the way of structural transformation. By favouring established incumbents over entrants or drawing resources into specific sectors, they often act as impediments to the creation of new innovative young firms, which disproportionally contribute to productivity growth and job creation (Criscuolo, Gal and Menon, 2014[28]; Eric Bartelsman et al., 2013[81]).

Rather than betting on specific sectors and adding to existing distortions, cost-efficient and effective industrial policies can help to reduce information and coordination problems, e.g. by providing detailed sector specific information on export markets provided by successful exporting firms (Artopoulos, Friel and Hallak, 2013[34]). In

addition, horizontal structural reforms that improve the business climate without favouring specific sectors, such as tax reforms or improvements in infrastructure, can help the transition towards a more integrated economy without curbing competition.

Such horizontal policies include further efforts to improve the tax system. A tax reform decided in 2017 will reduce some existing distortions and lower the overall tax burden on businesses over a period of 5 years, to stimulate investment and formal employment. For businesses, the reform focuses on reducing statutory corporate income tax rates while raising the taxation of distributed profits and on the gradual phase-out of the most distortive taxes such as the provincial turnover tax. This tax has a cascading effect and creates an artificial incentive for vertical integration, as there is no deduction for the tax paid at earlier production stages (as there would be in a VAT). It hurts competitiveness and acts as an interprovincial tariff barrier, as different tax rates are applied depending on the domestic origin of goods. As part of the accelerated fiscal adjustment, the gradual phase-out schedule of this tax has been revised and partly postponed upon request from the provinces, for which this tax is a major source of revenues. In the medium run, it will be important to continue the process of phasing out the turnover tax.

A financial transaction tax on every transaction in checking and saving accounts creates incentives to settle payments in cash, acting as a barrier for financial inclusion and formalisation. Plans to make this tax fully deductible from corporate income taxes have also been postponed in light of its significant revenues amounting to 1% of GDP. Looking ahead, the financial transaction tax should be abolished once the fiscal situation permits it. Broadening the tax base, for example in the area of VAT or personal income taxes, would create scope for lowering tax rates and accelerate the phase-out of particularly distortive taxes (see chapter "Key policy insights").

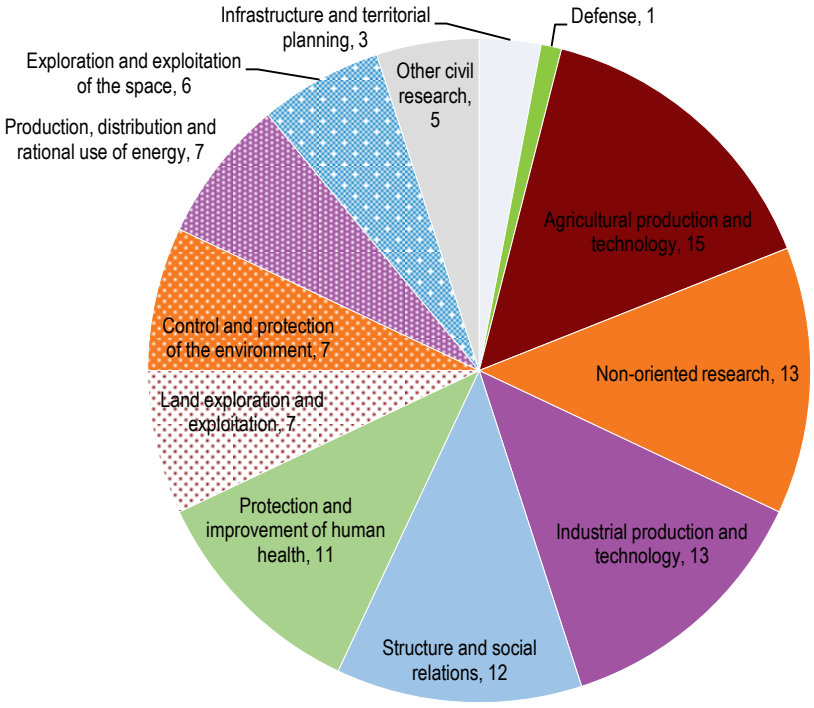
### *Strengthening innovation*

Innovation and investment in knowledge-based capital are important engines of growth and productivity (Foster et al., 2018[82]). Based on standard innovation indicators, such as patents applications, Argentina's performance is relatively low, below regional peers such as Chile and OECD standards. This general weak performance contrasts with remarkable success cases. For example, Argentina is a top performer in the aerospace sector, being at the vanguard in the satellite industry and in drone development. The agriculture sector is also at the innovation frontier in terms of farming techniques and use of biotechnology with INTA (Instituto Nacional de Tecnología Agropecuaria, National Agricultural Technology Institute) playing a key role in generating and promoting the diffusion of technologies (OECD, 2019[83]). These examples are suggestive of the high potential to become a top innovation performer.

Total spending on research and innovation is relatively low, amounting to 0.6 % of GDP, which is about half of Brazil and one fourth of the OECD average of 2.4%. The bulk of funds come from public sources, 96% of the total in 2011-2015, compared to only 3.5% from the private sector and 0.5% from international sources. In terms of implementation, decentralised public institutions such as the Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), the Instituto Nacional de Technología Industrial (INTI), or the Instituto Nacional de Tecnología Agropecuaria (INTA) represent almost 50% of the total spending, while public universities represent around 30% (MINCYT, 2015[84]). Expenditure on personnel represented 70% of total expenditure on R&D activities. Almost half of all resources were directed to applied research, compared to 40% for basic research.

"Agricultural production and technology" represents the largest reported focus area for public R&D investments in 2015 (Figure 1.33). Agriculture-related R&D objectives are also included in "non-oriented research" (basic research), "control and protection of the environment" and "land exploration and exploitation". The share of total investments going into research related to industrial production and technology is relatively low with 13%. To support the structural transformation of the economy, the government might evaluate the possibility of increasing public funds for research and development (possibly through reallocation of resources) to further support innovation clusters for promising industries and services, which are already close to the global technology frontier. These innovation clusters can have significant technological and knowledge spill-overs to the private sector (Baer, 2018[85]; Cabrer-Borrás and Serrano-Domingo, 2007[86]).

**Figure 1.33. Public R&D investments by objective, 2015**



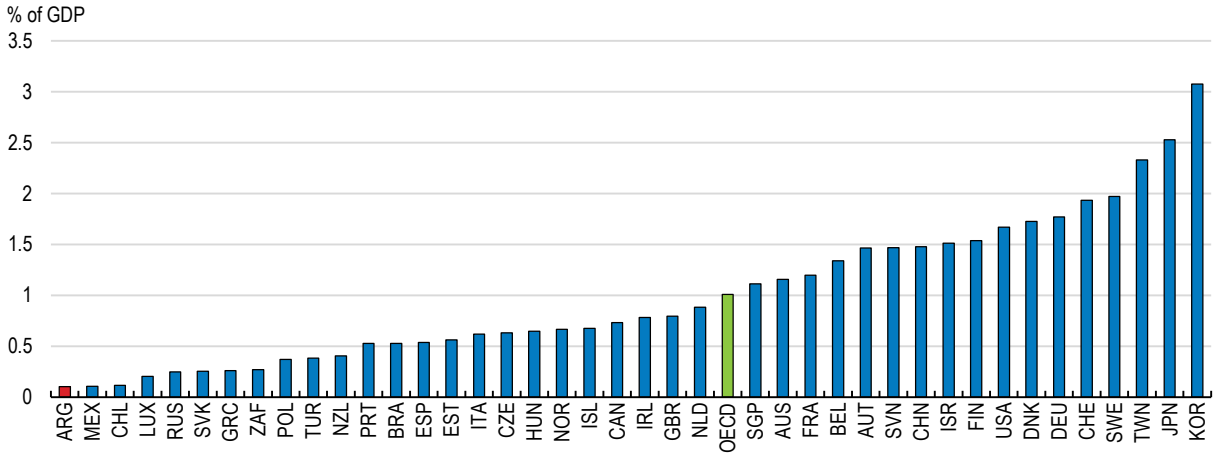

*Source*: (OECD, 2019[83]) based on (MINCYT, 2015[84])

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However, the main bottleneck in terms of expenditure for research and development is the private sector, which spends only 0.1% of GDP for research and development activities, versus 0.5% in Brazil or 1.1% in the average OECD country (Figure 1.34). Acknowledging that innovation is a key pillar for the new economic model, the authorities aim at improving incentives for raising business investment in research and development, but also plan to increase public expenditures for R&D. However, the recent macro-economic turbulences and the necessary fiscal adjustment will pose limits on reaching this goal, in particular for public investments in R&D.

**Figure 1.34. Business innovation is low**

Business enterprise expenditure in research and development, 2016 or latest year available




*Source*: OECD Research and Development Statistics database.

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Firm-level analysis conducted for this report emphasises the need to raise private innovation activities. An increase in expenditure for research and development by one million Pesos is associated with a 1.6% higher total factor productivity of Argentinian firms (Annex 1.A2). Moreover, firms using technology licensed by a foreign company have a 2.3% higher total factor productivity, indicating the importance of reducing import barriers to facilitate technology diffusion. Providing access to digital technologies is also crucial, as firms that have a website show a 2.4% higher total factor productivity.

However, the lack of competitive pressure on product markets curtails incentives for engaging in innovation activities and adopting new technologies and practices. Entry or the threat of entry have been found to stimulate innovation by incumbent firms (Aghion et al., 2005[87]). When the incentive to get a competitive edge over others is missing because competitive pressures are low, firms do not consider innovation a priority. Moreover, where competition does not drive less efficient firms out of the market to free their resources, much of the public support for research and development may be absorbed in prices and wages rather than in the quantity of R&D (Acemoglu et al., 2013[88]). Therefore, progress to strengthen domestic and foreign competition, as discussed above, would likely lead to more innovation (Bustos, 2011[89]).

There is also room to improve specific innovation policies. A key tool to foster innovation in firms is the R&D tax credit, which aims at alleviating difficulties faced by firms to fully appropriate the returns to their R&D investment and to find external finance, in particular for small or young firms (Appelt et al., 2016[90]). Argentina has an R&D tax credit based on a competitive allocation system with a budget of 0.002 % of GDP. The tax credit is applicable against tax obligations in the provincial gross turnover tax, which is an unusual design that puts young innovative firms at a disadvantage. Instead, in other countries, R&D tax credits can reduce corporate income tax liabilities, in some cases even with the possibility of refunds or extended loss carry-forward provisions. More innovative start-ups, focused on developing new products and technologies, usually have little sales initially, as the first commercialised forms of new innovations tend to fail

(Agarwal and Bayus, 2002[91]). Hence, the more innovative young firms are less likely to benefit from the tax credit under its current design. International evidence shows that to support these type of firms, the tax credit should include provisions such as the possibility to be converted into cash refunds or into reductions in social security and payroll taxes or include carry forward provisions (Appelt et al., 2016[90]).

Moving into that direction would optimise the support given to young and innovative firms, although it would reduce public revenues. Thus, the competitive allocation system of the tax credit together with the limited fiscal space of the government introduce a strong degree of uncertainty about the eventual availability of the credit, and thus the tax credit does not significantly alleviate the difficulties that firms face to finance innovation activities.

Strengthening the protection of intellectual property rights could also help Argentina to attract more foreign direct investment in some knowledge-intensive areas, such as biotechnology, for which it may have a natural advantage. According to some of its main trading partners, Argentina has considerable scope to strengthen its intellectual property rights protection, including by broadening its patentability criteria (European Commission, 2018[92]; USTR, 2018[93]). Existing international measures of intellectual property rights protection suggest that Argentina ranks below all OECD countries in this area (Levy-Carciente and Montanari, 2018[94]). Empirical evidence suggests that where rights are strong, foreign companies are not only more likely to invest but are also more willing to share technologies with local partners and more likely to engage in local research and development (OECD, 2015[95]). Intellectual property rights also provide an incentive to invest in research and development, fostering the creation of innovative products and processes and they give their holders the confidence to share new technologies through joint ventures and licensing agreements. In this way, successful innovations can be diffused within and across economies, bringing higher productivity and growth.

**Box 1.6. Recommendations to foster integration into the world economy**

**Key recommendations**

- Reduce tariffs and non-tariff barriers, starting with capital goods and intermediate inputs.
- Bolster adult training programmes and vocational education and training (VET) to ease the transition.
- Extend the unemployment insurance scheme with individual accounts currently used in the construction sector economy-wide, while reducing severance payments.
- Reduce domestic regulatory barriers to entrepreneurship and market entry, including at the level of provincial and local governments.

**Other recommendations**

- Take an active role in seeking more trade agreements between MERCOSUR and large markets. Take unilateral measures to reduce trade barriers, especially non-automatic import licenses.
- Further reduce administrative requirements for importing and exporting, including by fully implementing the online one-stop mechanism nationwide.
- Implement mandatory competition assessments of existing and future regulations.
- Continue improving the tax system by letting export taxes expire as planned in 2020 and phasing out provincial turnover taxes and financial transaction taxes.
- Simplify insolvency procedures and increase their effectiveness to reduce costs for entrepreneurs.
- Improve the quality of lifelong learning institutions for adults through better coordination between the different existing institutions across and within provinces.
- Promote a multi-stakeholder dialogue to anticipate skills needs, update the current classification of occupational titles and identify skills mismatches and shortages.
- Consider participating in the OECD Survey of Adult Skills (PIAAC) to inform education and training policies on skill needs.
- Improve the certification system for work competences to enhance employability, in particular for informal workers.

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# Annex 1.A.

## Annex 1.A1. Analysis of industry level effects of trade protection

To investigate how sectoral economic activity and exports have reacted to changes in input tariffs over the past 20 years, this report uses an industry panel dataset for Argentina from 1995 until 2016, which provides information on sectoral input and output tariffs, employment, production and value added as well as several indicators for the integration into global value chains. Data on production, value added and various measures for industry specific integration into the world economy are available for 1995-2011 and 33 sectors (including 2 natural resource, 16 manufacturing and 17 services sectors) and come from the OECD Trade in Value Added (TiVA) database (Dec 2016). Data on sector level formal employment comes from the Argentinian national statistics institute (INDEC) for the years 1996-2016 and 32 industries (data for public administration and defence is missing). Additional preliminary data provided by the TiVA team for the years 1995-2015 is used in robustness checks.

To measure protection at the industry level, this report uses data on average tariffs by 34 TiVA industries and enduse categories (capital goods, intermediate inputs, final consumption goods) for the years 1995-2016 from an OECD TAD database. Average tariffs by industry are calculated through computing the weighted average of product level tariffs within the industry, whereby import values are used as weights. Product level tariffs are applied tariff rates (AHS) at the HS 8 digit level, if these are not available preferential rates or most-favoured nation (MFN) rates are taken instead. To measure average input tariffs by industry, this report uses the technical input-output coefficients for Argentina for the year 2011 from the TiVA data (based on the IO matrix of 2004 with 34 industries) to weight input tariffs by the importance of the input for each industry.

The final dataset is a balanced industry level panel data set for the years 1995-2011, 1996-2016 for the employment regressions and 1995-2015 for additional robustness checks using preliminary TiVA data. Regressions using output tariffs as variable of interest only include 18 natural resource and manufacturing industries, as tariffs are not available for service sectors (average input tariffs can be calculated for all industries). To analyse the effects of protection on industry employment, production, value added and exports, OLS regressions are estimated for each of these dependent variables (in logs) which include as independent variables the tariff measures as well as time and industry fixed effects and use robust standard errors. In the baseline, each tariff measure is included in a single specification, but specifications where input and output tariffs enter simultaneously are also estimated.

To address possible endogeneity issues due to simultaneity of industry tariffs and the error term (leading to a downward bias of the coefficient estimate for tariffs), lagged tariff measures are used as instruments for current tariffs. In another robustness check, changes in Argentinian industry tariffs are instrumented using output shocks from the same industry in Brazil. This instrument is relevant because Brazil and Argentina are part of

Mercosur and tariff changes are often jointly decided, whereby Brazil has a strong weight in these decisions in the Mercosur. The instrument is unlikely to be correlated with the error term because output shocks are not strongly correlated across the border. For example, in 2017/2018 a drought has strongly affected the whole agro-industrial value chain in Argentina, whereas Brazil has experienced a record harvest. Both instrumentation strategies give similar results than in the baseline estimations.

The following two tables A1 and A2 show the results for the preferred specification that underlies the presented figures in the chapter. As regressions control for industry fixed effects, i.e. identification only uses variation within industries across time, time constant industry specific characteristics do not confound the results. To increase power for the regressions, the baseline includes the maximal available sample size for each dependent variable. However, regressions restricting the sample size to be equal across dependent variables show similar results. Further regressions using variation across industries (and excluding the fixed effects for industries) show similar results and are presented in Arnold and Grundke (2019).

**Annex Table 1.A.1. Effects of average input tariffs on economic activity**

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| **Dependent Variables:** | **Log of employment** | **Log of production** | **Log of value added** | **Log of output per worker** | **Log of value added per worker** | **Log of exports** | **Log of value added exports** | **Log of wages** |
| Average tariffs for Inputs | -0.023*** | -0.018** | -0.024** | 0.003 | -0.004 | -0.062** | -0.064** | 0.007* |
| | (0.007) | (0.009) | (0.011) | (0.011) | (0.012) | (0.029) | (0.028) | (0.004) |
| Industry FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 672 | 561 | 561 | 512 | 512 | 548 | 555 | 672 |
| R-squared | 0.986 | 0.980 | 0.979 | 0.936 | 0.906 | 0.962 | 0.970 | 0.996 |
| Adjusted R-squared | 0.985 | 0.978 | 0.976 | 0.930 | 0.896 | 0.958 | 0.967 | 0.996 |

*Note*: Robust standard errors in parenthesis, *** p<0.01, ** p<0.05, * p<0.1.
*Source*: OECD calculations based on data from OECD TiVA and INDEC.

**Annex Table 1.A.2. Effects of output tariffs on economic activity**

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| Dependent Variables: | **Log of employment** | **Log of production** | **Log of value added** | **Log of output per worker** | **Log of value added per worker** | **Log of exports** | **Log of value added exports** | **Log of wages** |
| Average output tariffs | 0.007*** | -0.018*** | -0.018*** | -0.026*** | -0.026*** | -0.005 | -0.005 | 0.002 |
| | (0.003) | (0.005) | (0.006) | (0.006) | (0.006) | (0.012) | (0.011) | (0.001) |
| Industry FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 378 | 306 | 306 | 288 | 288 | 306 | 306 | 378 |
| R-squared | 0.991 | 0.994 | 0.988 | 0.981 | 0.965 | 0.950 | 0.951 | 0.997 |
| Adjusted R-squared | 0.990 | 0.993 | 0.987 | 0.979 | 0.960 | 0.943 | 0.945 | 0.997 |

*Note*: Robust standard errors in parenthesis, *** p<0.01, ** p<0.05, * p<0.1.
*Source*: OECD calculations based on data from OECD TiVA and INDEC.

## Annex 1.A2. The firm level analysis

This report uses firm-level data for Argentina and the years 2006, 2010 and 2017 from the World Bank Enterprise Survey to estimate the total factor productivity (TFP) of firms in several industries in Argentina. To infer the TFP at the firm level, sector specific production functions are estimated for the pooled sample of firms across all years using information on revenue, employment, capital and intermediate input use. To compute real values for all firm specific monetary variables, the CPI is used as deflator (as used in the Economic Survey for Argentina). In robustness checks, additional data from INDEC on industry specific producer prices (excluding taxes and distribution margins) are used as industry specific deflators, and our results do not change.

The sector-specific production functions are estimated using the Levinsohn and Petrin (2003) estimator, which requires information for the same firm in at least two time periods. This is why the estimation was only feasible for five aggregated industries, as the sample does not include sufficient information on firms in other industries. The residual of the estimated production functions is taken as a measure for firms' total factor productivity (TFP). To make the TFP estimates comparable across industries, they are standardised by the industry mean. The resulting sample of firms for which the TFP estimation was feasible includes 1010 firm-year spells. In robustness checks, another measure for firms' TFP is computed by using the method of Caves et al. (1982). The main results are robust to using this measure.

To compute the part of average industry TFP that is explained by resource allocation across firms within the sector for a given year, this study uses the decomposition of Oley-Pakes (1996). Thereby, aggregate sector productivity is decomposed into two terms. The first one is the unweighted average of firm-level total factor productivity (TFP). The second one is a cross term that captures allocative efficiency since it reflects the extent to which firms with greater efficiency have a greater market share. The final measure for allocative efficiency in an industry is the share of industry TFP that is explained by the resource allocation in the industry.

To investigate the correlates of firms' productivity in Argentina, simple OLS regressions of firms' TFP on covariates are conducted on the pooled sample of firms using robust SE. The following covariates are included: dummies for the firm being a subsidiary, partly foreign owned, partly government owned, dummies for the economic region the firm is located, the age of the firm, three dummies for firm size (based on employment, using 5, 20 and 100 as thresholds), dummies for the year of the observation as well as industry dummies. FE regressions were also estimated, but often give insignificant results due to low sample size. Selected results are shown in Table A3.

**Annex Table 1.A.3. The productivity of firms depends on skills, international integration, innovation, access to credit, infrastructure and the regulatory environment**

Correlates of firm's total factor productivity for Argentinian firms

| Independent Variable | Association with firm level TFP | Percentage increase/decrease of TFP |
|---|---|---|
| **Skills** | | |
| Percentage of workers that completed high school | + | 0.02% |
| Firm has formal training programs for workers | ++ | 1.9% |
| **Trade** | | |
| Share of direct exports in total sales | +++ | 0.1% |
| Share of imported intermediate inputs | ++ | 0.03% |
| Firm has internationally recognized quality certification for its products | ++ | 2.1% |
| **Innovation** | | |
| R&D expenditure (in Million Pesos) | ++ | 1.6% |
| Using technology licensed by a foreign company | ++ | 2.3% |
| Firm has its own website | ++ | 2.4% |
| **Access to Credit** | | |
| Access to finance is an issue for the firm | --- | -0.7% |
| Firm has a line of credit from a financial institution | ++ | 1.8% |
| **Infrastructure** | | |
| Transport infrastructure is an issue for the firm | -- | -0.6% |
| Number of electricity outages per month | --- | -0.3% |
| **Regulatory Environment** | | |
| Labour regulation are an issue for the firm | --- | -1.0% |
| Competitors from the informal sector are an issue for the firm | --- | -0.9% |

*Note*: Results are based on OLS regressions on the pooled sample of firms using robust SE. The dependent variable is log of firm productivity (TFP). All regressions control for dummies for the firm being a subsidiary, partly foreign owned, partly government owned, dummies for the economic region the firm is located, the age of the firm, three dummies for firm size (based on employment, using 5, 20 and 100 as thresholds), dummies for the year of the observation as well as industry dummies. The sign "+" stands for a positive correlation and the sign "-" for a negative correlation of the independent variable with firms TFP. "+++"/"---" stands for significant at the 1% level, "++"/"--" stands for significant at the 5% level and "+"/"-" stands for significant at the 10% level

*Source*: OECD calculations based on the World Bank Enterprise Survey 2006. 2010 and 2017.

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Olley, S and A. Pakes (1996), "The Dynamics of Productivity in the Telecommunications Equipment Industry," *Econometrica*, 64, pp. 1263-1298.

## Annex 1.A3. The consumption side analysis

The data set used for this analysis is the household survey "Encuesta Nacional de Gastos de los Hogares (ENGH)" from the year 2013 for Argentina. The analysis follows the methodology used in Porto (2006) and simulates the effects of a 50% (100%) cut in tariffs and non-tariff measures (NTMs) on household welfare. To evaluate the welfare effects of a tariff or NTM cut, relative price changes induced by these tariff and NTM cuts are computed and used to construct the resulting total compensating variation (across all products in the consumption bundle) for each single household in the data set. The total compensating variation divided by the total expenditure is equivalent to the share of the total purchasing power that would need to be taken away from the HH so that it reaches the same utility level as before the price decreases. Then the information is aggregated within each decile of the household income (per capita) distribution by averaging the share of the compensating variation in total expenditure for each HH across all households within each decile.

To compute the price changes induced by a cut in tariffs, this study uses tariffs for the year 2018 from the Ministry of Production and Employment (at the ISIC rev 3 digit level) as well as more detailed tariff data from the WB WITS database for the year 2017 (at the SITC 3 digit as well as HS 4 digit level). To measure ad valorem equivalents (AVE) of NTMs for Argentina, data comes from recent OECD work that computes AVE for NTMs by end use category for ISIC Rev 3 sectors (Cadot, Gourdon and van Tongeren, 2018[13]). In this analysis, the data for the category final consumption goods is used to capture the effects of a decrease of NTMs on the prices of consumption goods. To simulate the welfare effects of the price changes, it was necessary to match the data on tariffs and NTMs to the product classification used in the ENGH, which is completely different from standard trade classifications.

## Annex 1.A4. The FDI regressions

To further investigate the nature of FDI flows in Argentina, regression analysis conducted for this report investigates how changes in sectoral import tariffs have been affecting FDI inflows in Argentina from 2005 until 2017. To this end, OLS regressions are estimated for sectoral FDI flows on the independent variables sectoral output tariffs in the current or last period, time and industry fixed effects. Through only using variation of FDI flows and tariffs within industries, the analysis controls for differences in FDI flows that are due to different relative comparative advantages across industries or other time invariant industry-specific characteristics.

The results show that FDI inflows increase in reaction to an increase in import protection, when only variation within industries is used (Table A4). This indicates that FDI flows to Argentina are mainly oriented to the domestic market, because they exploit the economic rents that are created through high import protection. When variation across industries is used, results are not significant indicating that FDI flows are also high for some sectors with low import protection.

**Annex Table 1.A.4. FDI Flows are oriented to the domestic market**

Regressions of sectoral FDI inflows on sectoral tariffs

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Dependent variable is Inflows of foreign direct investment (in Million USD) | | | |
| Average applied sectoral tariffs (t-1) | 4.883 | | 74.416** | |
| | (9.748) | | (29.107) | |
| Average applied sectoral tariffs (t) | | 2.788 | | 68.195** |
| | | (10.483) | | (28.649) |
| Year Fixed Effects | Yes | Yes | Yes | Yes |
| Industry Fixed Effects | No | No | Yes | Yes |
| Observations | 216 | 216 | 216 | 216 |
| R-squared | 0.145 | 0.144 | 0.188 | 0.182 |

*Note*: Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1.
*Source*: OECD calculations based on tariff data from OECD and data on FDI inflows from BCRA.

## Annex 1.A5. The OECD METRO model

To analyse the economy wide effects of trade policy changes, computable general equilibrium models (CGE) combine the supply and the demand side of an economy. The OECD METRO model is a CGE model linking 61 countries and 57 economic sectors. It has been used widely in trade analysis to simulate the effects of domestic trade policy reforms in an international environment (OECD 2015). The simulations represent medium-term shocks where production factors are mobile, but there is no capital accumulation.

CGE models rely on a comprehensive specification of all economic activity within and between countries (and the different inter-linkages that tie these together) and are suitable for examining the impact of a wide range of different trade shocks. The METRO model builds on the GLOBE model developed by McDonald and Thierfelder (2013). The novelty and strength of the METRO model lies in the detailed trade structure and the differentiation of commodities by end use. Specifically, commodities and thus trade flows, are distinguished by end use category, as those designed for intermediate use, for use by households, for government consumption, and as investment commodities.

The underlying framework of METRO consists of a series of individually specified economies interlinked through trade relationships. As is common in CGE models, the price system in the model is linearly homogeneous, with a focus on relative, not absolute, price changes. Each region has its own numéraire, typically the consumer price index, and a nominal exchange rate (an exchange rate index of reference regions serves as model numéraire). Prices between regions change relative to the reference region.

The database of the model relies on the GTAP v9 database (Aguiar et al 2016) in combination with the OECD Trade in Value Added data. Policy information combines tariff and tax information from GTAP with OECD estimates of non-tariff measures on goods, trade facilitation and export restricting measures. The dataset contains 61 countries and regional aggregates and 57 commodities.

The model is firmly rooted in microeconomic theory, with firms maximising profits and creating output from primary inputs (i.e. land, natural resources, labour and capital), which are combined using constant elasticity of substitution (CES) technology, and intermediate inputs in fixed shares (Leontief technology). Households are assumed to

maximise utility subject to a Stone-Geary utility function, which allows for the inclusion of a subsistence level of consumption. All commodity and activity taxes are expressed as ad valorem tax rates, and taxes are the only income source of the government. In this study, the government is assumed to maintain an internal balance by adjusting its expenditure. At the same time, the trade balance is fixed, and the nominal exchange rate is flexible in the simulations. Wages and the remuneration rates of all other factors (land, capital, natural resources) are assumed to adjust to equilibrate the factor markets.

For this survey, the OECD Metro model is used to simulate a unilateral decrease of Argentina's currently applied tariffs to the lowest levels among G20 countries.

**Annex Table 1.A.5. Unilateral tariff cuts would decrease input prices in many industries**

Changes in sectoral input costs and import prices in reaction to a unilateral tariff cut (in %).

| | Total Intermediate Input Cost | Intermediates Import Price |
|---|---|---|
| Cereal grains | -0.1 | 1.7 |
| Other agriculture | 0.4 | 0.2 |
| Oil seeds | -0.3 | 0.8 |
| Dairy | 0.3 | -3.1 |
| Natural resources | 0.0 | 1.0 |
| Meats | 0.9 | 0.5 |
| Food and beverage | 0.4 | -4.1 |
| Textile and wearing apparel | -4.2 | -10.7 |
| Mineral products | 0.0 | -3.8 |
| Ferrous metals | -0.6 | -3.8 |
| Nonferrous metals | -0.4 | -2.5 |
| Metal products | -0.8 | -6.5 |
| Motor vehicles and parts | -3.7 | -8.9 |
| Transport equipment | -2.6 | 4.0 |
| Electronic equipment | -2.3 | -1.1 |
| Machinery and equipment | -1.2 | -4.1 |
| Other manufacturing | -0.4 | -2.9 |
| Transportation | -0.5 | 1.7 |
| Communication | 0.3 | 1.7 |
| Financial services | 0.2 | 1.6 |
| Insurance | 0.3 | 1.7 |
| Business services | -0.1 | 1.6 |
| Other services | -0.1 | 1.6 |

*Note*: The results show the percentage change in sectoral input costs and import prices in reaction to a tariff cut in all natural resource and manufacturing sectors to the lowest levels among G20 countries.
*Source*: OECD calculations based on the OECD Metro model.

**Annex Table 1.A.6. Unilateral tariff cuts would lead to sectoral reallocation of workers**

Changes in sectoral employment by occupation group in reaction to a unilateral tariff cut (in %).

| | Technical and assistant professionals | Clerks | Service and shop assistants | Office managers and professionals | Agricultural and other low skilled workers |
|---|---|---|---|---|---|
| Cereal grains | 2.8 | 2.3 | 2.8 | 3.2 | 2.6 |
| Other agriculture | 1.1 | 0.8 | 1.1 | 1.0 | 0.8 |
| Oil seeds | 1.9 | 1.6 | 2.3 | 2.2 | 2.0 |
| Dairy | 1.4 | 1.2 | 1.5 | 1.0 | 1.3 |
| Natural resources | 1.3 | 1.2 | 1.6 | 1.3 | 1.2 |
| Meats | 0.8 | 0.6 | 0.9 | 1.0 | 0.7 |
| Food and beverage | 1.8 | 1.6 | 1.9 | 1.8 | 1.6 |
| Textile and wearing apparel | -3.3 | -3.5 | -3.2 | -3.1 | -3.5 |
| Mineral products | -0.3 | -0.5 | -0.2 | -0.3 | -0.5 |
| Ferrous metals | 0.7 | 0.6 | 0.9 | 0.7 | 0.6 |
| Nonferrous metals | 7.4 | 7.2 | 7.6 | 7.5 | 7.3 |
| Metal products | -2.3 | -2.5 | -2.2 | -2.3 | -2.4 |
| Motor vehicles and parts | 7.7 | 7.5 | 7.9 | 7.6 | 7.5 |
| Transport equipment | -1.3 | -1.6 | -1.2 | -1.4 | -1.5 |
| Electronic equipment | -2.3 | -2.6 | -2.0 | -1.8 | -2.4 |
| Machinery and equipment | -2.6 | -2.8 | -2.4 | -2.6 | -2.7 |
| Other manufacturing | 0.2 | 0.0 | 0.3 | 0.2 | 0.0 |
| Transportation | 1.2 | 0.9 | 1.3 | 1.1 | 1.0 |
| Communication | 0.8 | 0.6 | 0.9 | 0.8 | 0.6 |
| Financial services | 0.7 | 0.5 | 0.8 | 0.7 | 0.7 |
| Insurance | 0.7 | 0.7 | 0.9 | 0.8 | 0.0 |
| Business services | 1.0 | 0.7 | 1.1 | 1.0 | 0.8 |
| Other services | -0.3 | -0.5 | -0.2 | -0.3 | -0.5 |

*Note*: The results show the percentage change in sectoral employment by occupation group in reaction to a tariff cut in all natural resource and manufacturing sectors to the lowest levels among G20 countries.
*Source*: OECD calculations based on the OECD Metro model.

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ISBN 978-92-64-72057-2 – 2019

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**Volume 2019/7**
**March 2019**

OECD publishing
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**ISSN 0376-6438**
**SUBSCRIPTION**
**(18 ISSUES)**

**ISBN 978-92-64-72057-2**

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