



European Bank
for Reconstruction and Development

Poland diagnostic paper: Assessing progress and challenges in developing a sustainable market economy (2018)

Executive summary

This paper assesses the progress in Poland towards a well-functioning, sustainable market economy, and the challenges ahead. It focuses on the role of the private sector. It also benchmarks Poland according to the newly published EBRD methodology for measuring transition, whereby each country of operations is assessed along six desirable qualities of a sustainable market economy: competitive, integrated, well-governed, resilient, green and inclusive. It provides a basis for the design of the forthcoming EBRD Country Strategy for Poland and for the structure of the EBRD's ongoing and future investment activities and policy engagements in the country.

The report singles out five key constraints that are holding back private sector growth in Poland. These are the following:

1. Addressing labour supply and quality will make Poland more **resilient** and **competitive**.
2. Expansion of mid-sized firms internationally, more efficient firm restructuring and exit, and efficient use of innovation policy would help overcome investment and productivity growth barriers, thus improving Poland's **competitiveness** and **integration**.
3. Development of non-banking, in particular equity, financing would help accelerate innovation and international **competitiveness** of SMEs, making the economy more financially **resilient**.
4. Strengthening the independence of state institutions and improving governance of state-owned enterprises (SoEs) would make Poland **better-governed** and its private sector more **competitive**.
5. Diversifying the energy mix away from hydrocarbon sources and improving energy efficiency will help Poland capture the substantial opportunities in the global transition to the **Green** Economy and tackle major air quality issues.

The report provides evidence that Poland is among the economies most advanced in transition, in many respects at par with mature market economies, but that it still faces some transition challenges, particularly in terms of building a green and competitive economy. Annex 1 of the report provides scores, along with insights into the relative strength of development of Poland along these six dimensions.

Introduction

This paper assesses the progress of Poland towards a well-functioning, sustainable market economy, and the challenges ahead. Focusing in the private sector, it identifies five key constraints that currently hold back the transition into a sustainable market economy as defined by the new EBRD transition concept. The report also benchmarks Poland according to the new EBRD methodology for measuring transition, whereby each country of operations is assessed along six desirable qualities of a sustainable market economy: competitive, integrated, well-governed, resilient, green and inclusive.

Sections 1 and 2 of the report describe the recent performance of the Polish economy, the role of the private sector, and the political economy context. Section 3 provides an in-depth analysis of five of the constraints to the development of a sustainable market economy. Annex 1 presents an overall assessment for each of the six sustainable market qualities, as well as a brief outline of the underlying methodology.

1 The macroeconomic context: resilient growth, productivity record

In over 25 years of transition and 13 years within the EU Poland has staged an impressive economic convergence. Since EU accession in 2004, Poland's GDP per capita increased from 50 per cent (purchasing power-adjusted) of the EU-average to 70 per cent in 2016. At the same time, it has been the only country that avoided the recession and financial retrenchment suffered by all its peers in the region amidst the European financial crisis. There are no major imbalances in private debt, domestic demand or external financing requirements. The fiscal deficit is one of the few recurring macroeconomic concerns, with debt to GDP steadily increasing despite strong economic growth.

As elsewhere in the EU in the crisis, private capital formation has been weak since 2009, yet overall investment has been supported by public spending from EU structural funds (see Figures 1 and 2). Poland has never shown the investment dynamism in investment observed in some other EU new member states. Our assessment of business obstacles, and the activity of state-owned companies in later sections of this report underlines that this might be explained by failings in market regulation, and less in the financial system or in external market conditions.

Figure 1 Public investment and EU transfers to Poland

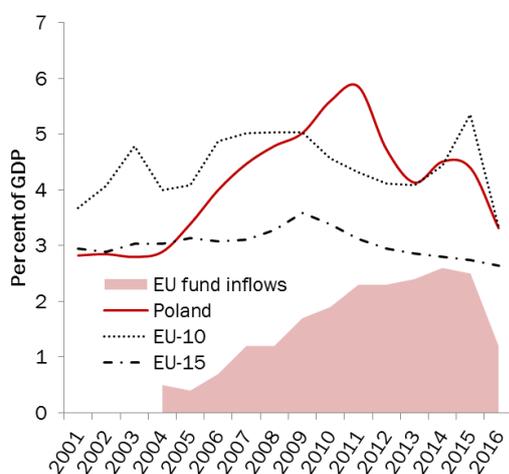
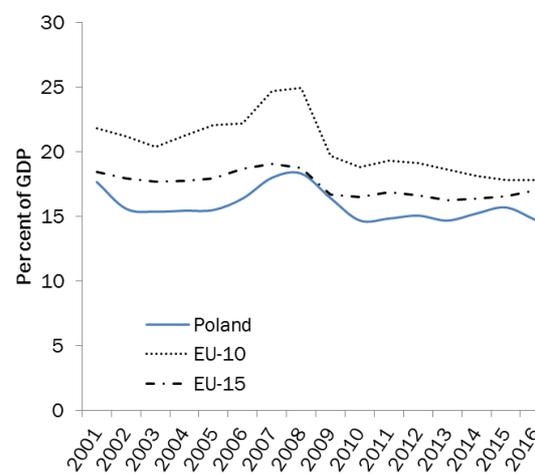


Figure 2 Private investment



Source: EC Ameco. Note: In the LHS chart capital account credit serves as a proxy for EU fund inflows.

The short-term economic outlook is positive, nevertheless a recent drop in public investment (see Figure 1), largely induced by the switch to the new EU programming period, weighed on 2016 GDP growth which, at 2.8 per cent, was the lowest such rate since 2012. The EBRD currently projects 4.1 per cent GDP growth for 2017. Tightening labour markets and consistent real wage growth have underpinned a consumption-led recovery.

The role and situation of the private sector in Poland

The private sector in Poland has a dominant role in the economy, and its importance is close to EU average. At 77 per cent in 2015, the private sector employment is above the CEE average (74.3 per cent).¹ At first sight, OECD data from 2012 also point to a limited involvement of the public sector in state-owned enterprises (SoEs): employment there is substantially lower than OECD averages (1.4 vs 3 per cent of employment), not to mention countries such as Norway, France, Slovenia and Finland, where the state share in SoEs exceeds 9 per cent of national employment. However, as indicated in Section 3.4 below, the breadth of the state presence is larger than average. Also, the latest acquisitions of state-controlled entities (not yet reflected in internationally comparable data) have shifted the statistics of private ownership downward, with SoEs representing 81 per cent of the main Warsaw Stock Exchange index capitalisation in 2017.

Poland has a relatively fragmented firm structure. The number of companies (relative to GDP) is higher than in any other EU-11 country, mostly due to the high share of micro enterprises. About 95 per cent of the 1.5 million enterprises employ fewer than 9 workers. Micro and small SMEs (with less than 50 workers) account for roughly half of total employment (similar to the EU average), but are among the least productive within the EU.

While the fragmentation of its industrial structure weighs on productivity growth, it supports the resilience of the Polish economy. Polish exports are more diversified than those of its neighbours. Whereas automotive products represent well over a quarter of Czech and Slovak exports and Hungary is similarly dependent on electronics, it is difficult to identify a similar flagship industry in Poland. The country has a thriving auto parts industry, but it also exhibits strengths in other transportation products like aviation and shipbuilding. A wide range of other industries includes agricultural products, cosmetics, minerals, plastics and textiles, as well as service industries such as tourism and banking.² This diversified structure is an asset, helping to insulate the country from disruptive shocks.³ Sharp contractions in final demand, which happened due to the concentrated exposure to cyclical industries in Slovakia and Hungary in 2009, have not been observed in Poland.

Low R&D expenditure is a long-standing issue in Poland. R&D spending is at 0.94 per cent of GDP, half of the EU average, below Hungary and far below the Czech Republic. The EC's 2017 *European Innovation Scoreboard* puts Poland in 4th position from the bottom in the EU. Researchers represent only 0.6 per cent of the labour force, and most of them are employed in the public sector.

Poland specialises in low- and medium-technology industries. The share of high-technology exports of 8.5 per cent, trails the EU-average (17 per cent), also those of the

¹ Data are from 2014 or the latest available year (International Labour Organisation)

² Bogumil and Wieladek (2014): [Securing Poland's economic success: A good time for reforms](#); Kapil et al. (2013): [Poland - Enterprise innovation support review](#); Martin (2013): [Constructing Capitalisms: Transforming Business Systems in Central and Eastern Europe](#).

³ Ornston (2016): Good Governance Gone Bad: When Adaptability Leads to Excess (unpublished book manuscript).

Czech Republic, Hungary and the Slovak Republic (Eurostat 2016). The gap is even more pronounced when one broadens the scope of the analysis to include medium-high technology industry and measures of value-added.⁴

There is a new vibrant business services sector. Total employment in the sector is currently about 160,000 of which all but 20,000 are in roughly 470 foreign-owned service centres which exclusively serve one individual firm. This is a sector with productivity well above the average in business services, which could benefit other sectors once better management skills get more widely dispersed.

Poland generally has a good business environment. It ranks 24th globally in the World Bank's 2017 Doing Business report, below only the Baltic States, FYR Macedonia and Georgia within the EBRD's countries of operation. Poland lags in "starting a business" and "contract enforcement", while much progress has been made in dealing with construction permits and utilities, as well as paying taxes. The business obstacles flagged in the EBRD/World Bank Business Environment and Enterprise performance Survey (BEEPS V, conducted in 2012-2013, which makes the results somewhat outdated, given the speed of reforms) are a burdensome tax administration (1st largest obstacle, but subject to large changes of late) and competition from the informal sector (2nd largest obstacle). In the latest EIB survey, "political and regulatory climate" was the most negative factor influencing short-term investment decisions, while "uncertainty", "regulations" and "staff availability" were quoted as the key long-term obstacles to investment.⁵

2 Reform context

Poland is an advanced transition country, which has made impressive progress in market economic reforms and in building multiparty democracy and which is firmly anchored in NATO (since 1999) and the EU (since 2004).

After eight years of the PO rule (2007-2015), the PiS won both the last presidential (May 2015) and parliamentary (October 2015) elections, becoming the first political party since the beginning of Poland's transition that has been able to form a government by itself. The party's ideological platform blends a conservative stance on moral issues, emphasis on national sovereignty, and a socially-oriented economic outlook with a strong development incentive. **Drawing on the popular mandate and driven by its agenda of change, PiS and its government have implemented broad policy revisions.** Economic growth, innovation and competitiveness remain important objectives, but **the structural reform context has changed.**

The Responsible Development Plan, adopted by the government in February 2016 and designed until 2020 describes a growth model is based on five pillars: reindustrialisation, development of innovative companies, capital for development (focusing on increasing investment, including through growing savings and EU funds), international expansion (including the development of strong Polish brands), and social and regional development (including improving the demographic situation, focusing on the development of rural areas, and changing vocational education).

In recent years, **Poland has made further progress in combating corruption.** According to Transparency International's Corruption Perceptions Index 2016, Poland was ranked 29th out

⁴ Bogumil and Wieladek (2014): [Securing Poland's economic success: A good time for reforms.](#)

⁵ EIB (2016), [EIBIS 2016, Poland Country Overview](#)

of 176 countries and is the 2nd best ranked of all EBRD countries of operations. The current government places a special focus on the fight against corruption and tax evasion.

Some challenges exist in the area of public governance, in particular related to reforming the judiciary. While the judiciary is independent and generally provides an effective check on executive and legislative powers, it does require procedural reform allowing it to more efficiently deal with a large case load. At the same time, the changes proposed led the European Commission to launch its procedure under the “framework for addressing systemic threats to the rule of law”. The EC has issued three recommendations and launched an infringement procedure against Poland (the latter for breach of EU law by the newly adopted law on Organisation of Ordinary Courts). In the Commission’s view, the amendments to the composition and functioning of the Constitutional Tribunal and the ongoing judicial reform, encompassing the Supreme Court and the National Council for the Judiciary, undermine trust in the Polish legal system and potentially can affect negatively the investment rate and a business friendly environment. The Polish government, however, has considered those concerns to be unjustified and has maintained that deep reforms are needed to make the judiciary more accountable.

3 Key binding constraints to developing a sustainable market economy

Discussing binding constraints to Poland’s economic development requires particular care. The fact that Poland has been such a consistently growing country since the early 1990s calls for caution in proposing major policy shifts – clearly the policies pursued *did* deliver, on a number of fronts, better than in most countries in the world. Comparative indicators need to be filtered through the theory of second best lens: for example, rigid labour contracts do not matter much for overall labour market flexibility, given the prevalence of alternative work arrangements; and the often-reported long registration process for limited liability companies matters less if other legal forms of small firms are much easier to register.

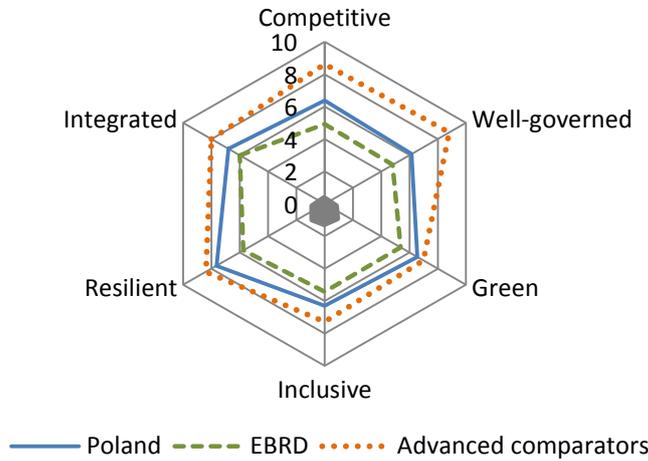
The speed of the recent regulatory changes must also be taken into account. The latest BEEPS V points to tax administration as a key business obstacle. Since then, however, Poland climbed over 60 places in the World Bank’s Paying Taxes ranking. On the other hand, the impact of the increased role of SoEs, the efforts to increase tax compliance, the reduced role of the Constitutional Tribunal and the proposed changes to the judiciary will all take time to filter through. In assessing these, it is necessary to rely on economic judgment and other countries’ past experience.

That said, the spectacular growth of the past decade already starts to meet fundamental headwinds. Potential supply bottlenecks threaten to hinder the further improvement of living standards and the stability of public finances. Potential supply issues concern both production factors, such as labour or capital stock, and their slowing productivity.

In this section, we present an analysis of five of the key constraints that are still holding back the economy from developing its full potential. Annex 1 provides a snapshot of each of the six qualities. While Poland’s average assessment of the transition qualities’ score (ATQs) comes substantially **above the EBRD region average**, especially in terms of resilience, governance and competition, **the overall score still remains substantially below the advanced comparators**, such as Germany, Sweden and the USA. **Well-governed, competitive and integrated are the transition qualities that still substantially depart from the best international standards** as shown in Figure 3.1. Despite a relatively high green transition ATQ vis-a-vis the advanced comparators, serious challenges remain, with **air**

pollution and relatively low share of renewables remaining the major issues. Unless appropriate measures are taken, the gap in green transition quality may widen further.

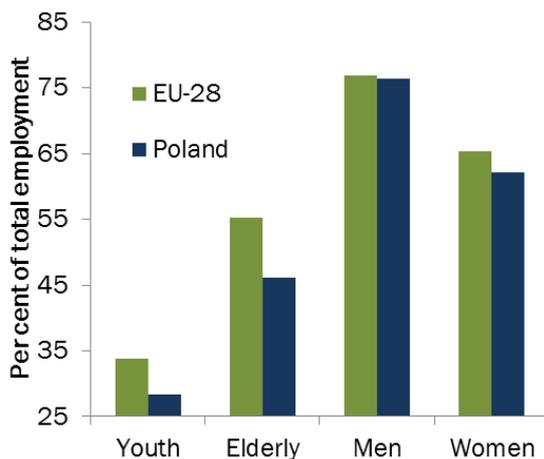
Figure 3.1 ATQ scores for 6 qualities of a sustainable market economy, 1-10.



Source: EBRD estimates. Note: Level of development within each of the qualities is measured from 1 to 10, with 10 representing the highest level of development.

3.1 Addressing labour supply and quality will make Poland more resilient and competitive

Figure 3.1.1 Employment, by age and sex.



Source: Eurostat. Note: Total employment (resident population concept - LFS).

The labour force is projected to shrink substantially as rapid ageing sets in. The European Commission’s Ageing Report suggests that over the next 50 years Poland’s total population is expected to decrease by 19 per cent, with a parallel drop in the share of working age population to total population by over 15 percentage points.⁶ As a result, the old-age dependency ratio (the ratio of the population aged 65 and over relative to the workforce aged 20-64) is expected to more than double to 68 per cent by 2070, resulting in serious pressures on the pension system.

The participation rate’s upward trend could still be strengthened. This would help to counterbalance the labour force shrinkage. The participation rate has reached the OECD average for prime-age men. It remains, however, low for female and very low for older workers (Figure 3.1.1). The situation has been made worse by the 2017 *reduction* of the

⁶ European Commission (2018): [The 2018 Ageing Report](#).

statutory retirement age from the targeted 67 years to 60 for women and to 65 for men. The switch to a defined contribution system in 1999 has set the right incentives for longer voluntary labour market participation. However, low contributions by farmers, the self-employed, and those engaged in alternative labour contracts will expose these groups to pensions at the minimum threshold (itself pushed higher by political pressure from aging voters). Quick retirement in such circumstances could prove to be the economically optimal choice for such workers. Apart from increasing the labour participation rate, aging-related potential growth pressures can be alleviated by two other means: positive net immigration, and higher labour productivity.

The strong economy and relatively easy access to the Polish labour market has led to about half a million net inflow of workers from Ukraine.⁷ The National Bank of Poland (NBP) estimates their total income earned at €1.9 billion, out of which €1 billion constituted remittances to Ukraine in 2015. They are mostly employed in construction, hospitality, agriculture and household services.⁸ About 60 per cent of Ukrainian immigrants are men and their average age is 33. Also, a significant group are students. In 2015, there were more than 30,000 Ukrainian students at Polish universities, which represents an increase by 30 per cent in relation to 2014. In addition to studying, half of them are active in the labour market, with about 40 per cent of them considering remaining in Poland after graduation.

The average annual real labour productivity growth of 2.5 per cent in the past decade is strong, compared to averages of the OECD or the EU. However, productivity is still being held down by regulatory distortions concerning large professional groups – farmers or miners – benefitting from overly generous social welfare provisions, which discourage mobility into other sectors and across the country (see Box 1).

Professions' regulations remain another obstacle limiting productivity growth, despite major deregulation reform efforts. The reforms of 2013-2015 deregulated 248 professions in total, out of which barriers have been completely abolished in 70 cases and partially in the remainder. Even with these policy measures, the number of regulated professions remains relatively high at 350, far above the level in migration destination countries like the United Kingdom (216) or Germany (148).⁹

Skills mismatches and inadequate further on-the-job training are an increasingly severe constraint reported in business surveys.¹⁰ A reform in vocational training was implemented in 2013, though the unemployment rate for graduates of basic vocational schools is at 43 per cent, and schools admit openly that cooperation with employers and industry associations is poor.

Labour regulations remain a concern for businesses (as shown in BEEPS V), but a careful analysis points to a more nuanced picture. Regular employment contracts under the Polish labour code are inflexible, costly to terminate and relatively expensive in terms of social security contributions. The latter is true for lower earning workers, but not for employees earning above average wages, where the tax wedge is among the lowest in the EU.¹¹ At the same time, the degree of rigidity and (despite recent changes) the social security contribution burden are far smaller for civil contracts or self-employment. As a result, these

⁷ Even though a total of about one million of migrants from Ukraine visited Poland only in 2015, due to its circular nature (they come to Poland for a few months, and then return home) only about half a million of them were residing in Poland at any given time.

⁸ NBP (2016): [Obywatele Ukrainy pracujący w Polsce](#).

⁹ EC (extracted April 2016): [Regulated Professions Database](#).

¹⁰ OECD (2016): [Economic Survey: Poland](#).

¹¹ OECD (2017): [Taxing Wages](#).

types of contracts have grown in prominence since the beginning of the crisis. At 28.4 per cent, Poland has the highest share of employees with a contract of limited duration, double the EU average. The resulting overall increased labour market flexibility contributed to job creation or safeguarding during the latest financial crisis. However, this regulatory promotion of labour market duality hampers skill formation in the long run.

Box 1: Agriculture epitomizes costs of stalled structural reforms

With 11.5 per cent of the workforce employed in farming, rural Poland remains a mainstay of the economy. For this reason, long delays in reforms are troubling for other sectors and the labour market overall.

Productivity in agriculture is exceptionally low, even by the standards of other new EU member states in the region. The sector has benefitted from substantial inflows of EU funds under the common agricultural policy, and from the EU's Structural and Investment Funds, estimated at about €34 billion in the ten years to 2014. Farming income tripled during this period, outpacing that in the wider economy. Upgrades in equipment and in the processing industry have raised agricultural export volumes almost fourfold over this period. The underlying impediments to low productivity – especially the lack of consolidation – are if anything more binding. Average farm size is one of the smallest in Europe. As an early measure the current PiS-led government adopted a law that suspends the sale of land by the state agency, and restricts land sales between private parties, entirely banning from further acquisitions those already holding farms above a certain size and further constrains consolidation.

The most persistent – and costly – impediment to the farming workforce moving out of the rural economy lies in the preferential tax regime, which is largely based on farm plot size. This has resulted in over 40 per cent of the rural workforce declaring themselves as self-employed. This contributes to Poland's exceptionally high share of precarious labour contracts. Moreover, terms offered by the Agricultural Social Security Fund (KRUS) are also generous. State subsidies to KRUS amount to almost 1 per cent of GDP and only a tenth of costs is covered by actual contributions. There is no system for assessing and recording farmers' income, which could be a basis for personal taxation and social security contributions. As in the mining sector, special privileges therefore provide disincentives for a substantial share of the workforce to move away from an as yet unproductive sector, even though farming workers are on whole relatively young and well educated.

3.2 Expansion of mid-sized firms internationally, more efficient firm restructuring and exit, and efficient use of innovation policy would help overcome barriers to investment and productivity growth.

Until recently, Poland boasted rapid productivity convergence thanks to the opening of the market to European competition and the influx of foreign technology and know-how. Manufacturing (accounting for 19 per cent of employment) and the retail sectors (22 per cent) benefited from especially rapid productivity upgrades.

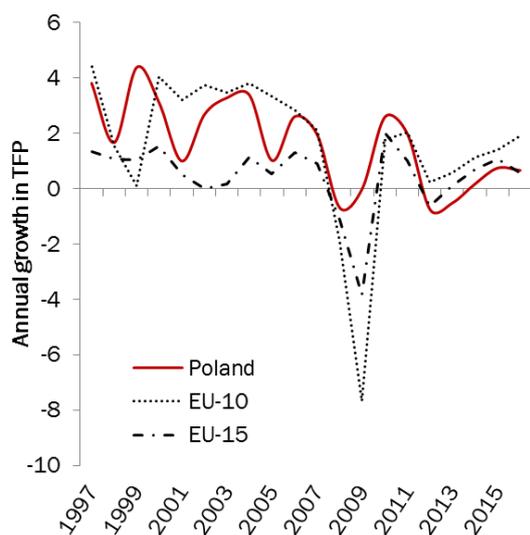
Nearly 80 per cent of productivity growth has been accomplished through greater efficiency *within* sectors, as opposed to structural transformation – relocation of workers to more productive sectors.¹² Growth in total factor productivity (TFP) accounted for about half

¹² IMF (2015): Republic of Poland [Selected Issues](#).

of the total GDP growth in the first ten years of EU membership¹³, and as much as 70 per cent since the beginning of transition.

Since the global financial crisis, overall productivity growth has slowed down (Figure 3.2.1). This decline has similarly been experienced by most advanced and emerging economies, and may be related to the increase in risk, the slowdown in global trade, and the

Figure 3.2.1 Total factor productivity growth



Source: EC Ameco.

fact that productivity growth at the global frontier is increasingly narrowly generated by a small set of large firms.¹⁴ However, there are important Poland-specific factors, which have further reinforced this trend.

Particularly striking features of Poland's private sector in this respect include: (1) the relatively rigid structure of the economy, (2) the poor innovation record, and (3) underutilised gains from global integration.

Rigid structure of the economy

The reallocation of factors of production away from the least productive sectors has so far contributed only modestly to aggregate growth in Poland.¹⁵ The most striking example is agriculture, which remains inefficient and continues to tie up substantial resources. Equally important can be explicit or implicit state support to SoEs or ailing companies, such as loss-making coal-mining holdings.

The problem of resources tied up in less productive sectors is especially damaging during a cyclical upswing, such as in 2016-2017. In such an environment, short-term employment losses related to failing companies quickly give way to gains – both for the workers and the economy as more competitive firms take up the idle resources. The elimination of structural impediments to inter-sectoral labour mobility (mentioned in the previous section), a higher churning rate and more FDI can also contribute to improving productivity.

Even though *within sector* productivity growth has been strong in Poland, the recent slowdown underscores the remaining gaps. Foreclosure proceedings, ease of starting new businesses, and competition distortions created by the large presence of SoEs all limit within-sector competitiveness gains. Fragmentation of companies and a large share of small, unproductive firms is evidence of gaps in this area. The EBRD's Transition Report *Innovation in Transition* (2014) highlighted a relatively 'fat tail' of unproductive SMEs when compared to other emerging markets with a longer innovation record, such as Israel (Figure 3.2.2).

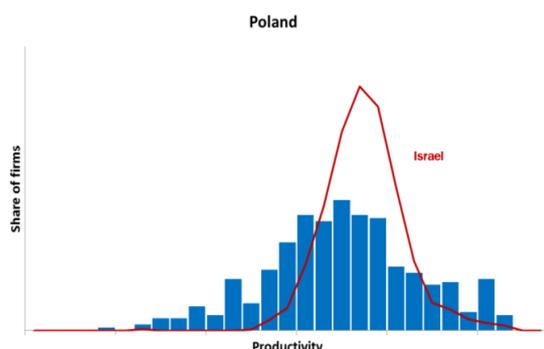
¹³ EBRD Transition Report 2014

¹⁴ IMF (2016), [Regional Economic Outlook](#) and OECD (2015): [The Future of Prosperity](#).

¹⁵ IMF (2015): Republic of Poland [Selected Issues](#).

Product market competition remains below other OECD countries. According to the OECD's assessment, the quality of competition policy is slightly above the average of

Figure 3.2.2: Distribution of productivity across firms sizes, compared to Israel.



Source: EBRD Transition Report (2014): [Innovation in Transition](#).

Note: The black line is the fitted distribution for Israel. Firm level productivity is measured in logs and defined as turnover per employee.

advanced countries. The competition authority is perceived as an efficient enforcer. At the same time, market reality does not seem to reflect this. Price-cost margins are significantly above those in other EU member states, including others in central Europe. Service sectors, which do not face foreign competition, show the highest distortions.¹⁶

The slow pace of firm entry and exit weaken competition and entrepreneurship.

Poland is in a mid-ranking position in terms of business obstacles, and there has been commendable progress in some areas, such as paying taxes or regulation of professions. Others, such as starting a business or contract enforcement, are long-standing obstacles. The judiciary labours under an ever increasing case load, to some degree linked with the liberal tax ruling appeal system.

Restructuring of viable but excessively leveraged companies has so far been difficult, even though the overall size of corporate debt is not a systemic problem. It remains to be seen if the law adopted in 2015 provides more opportunities for corporate financial restructuring ahead of a possible liquidation. The law brings relief to distressed corporates by opening new mechanisms for financial restructuring and, where necessary, allows for rapid liquidation. An IMF analysis finds potential gains in TFP from strengthening of property rights (this could relate in particular to foreclosure proceedings), upgrades in the legal system, which suffers from long delays, and easing of business regulation.¹⁷

A longer term source of productivity is innovation, an area where Poland lags. An EBRD analysis¹⁸ of innovation policy in Poland shows a number of gaps and risks. (1) the wave of the EU co-financed funding in the current EU perspective calls for as wide as possible distribution to avoid disruption and crowding out of the private sector (see Box 2). (2) Coordination between public and private sector is lagging, especially when compared with innovation leaders such as Finland or Israel. (3) Public sector initiative coordination has improved, aided by the creation of the Polish Development Fund. However, this, combined with rigidity of EU financing, might reduce the space for experimentation and pilot projects by both the public and the private sector. (4) Reliance on EU funding also increases administrative burdens, discourages risk-taking and threatens continuity when EU budget changes.

¹⁶ OECD (2014): [Poland Economic Survey](#).

¹⁷ IMF (2016): [Regional Economic Outlook](#).

¹⁸ Breznitz and Ornston, 2017: [EU financing and innovation in Poland](#).

Underutilised gains from global integration

Outward FDI is a particularly underutilised channel of productivity growth in Poland. Through its foreign operations a Polish enterprise can develop skills in managing several affiliates, draw on foreign workforce skills, and manage within more diversified and challenging markets. Firms with international engagement are on average larger, more productive, have higher capital intensity and pay higher wages. These benefits of international expansion trickle through to suppliers and other local firms that compete in the same industry.¹⁹

As should be expected for a capital-importing economy, outward investment is much less developed than inward investment. In 2015 the stock of outward investment stood at about 6 per cent of GDP. This extent of outward investment presence is in line with that of other new EU member states, such as Slovenia or Croatia, though well below others such as Hungary, which stands at 32 per cent, let alone more established emerging markets such as Malaysia (at 47 per cent).

Inward FDI is well developed and diversified, though concentrated in the western part of the country. Original equipment manufacturers which operate globally still run largely labour-intensive and low value added production processes in Poland, and export few high-tech products. Design or R&D, by now relatively common in Hungary (e.g. in electronics), are as yet rare in Poland.²⁰

3.3 Development of non-bank financing would help accelerate innovation and international competitiveness, especially among SMEs

Banking sector

Poland's financial sector is dominated by banks, which have performed well in deepening access to credit among households and enterprises. The sector is well regulated, competitive and innovative in the fintech sphere. Liquidity mismatch related to mortgage portfolio funding can now be addressed as the new covered bond legislation is in place. Foreign currency mortgage lending is more a political than a systemic issue; it is also steadily declining thanks to low NPLs and the absence of new such loans. While on average the sector is well capitalised, increasing capital requirements will be a challenge for some individual banks.

The remaining flaw is in a small but highly risky cooperative bank and credit union sectors, which are both politically well positioned, but seemingly devoid of a good business model in low interest rate environment. A stream of failures of small institutions since 2014 was easily covered by the well supplied deposit guarantee system, but such events remain a burden on the system's capital adequacy. Looking forward, the increasing role of the state in the banking system and the introduction of a bank levy based on non-treasury assets constitute potential threats to the allocative efficiency of the system.

One of the victims of the current bank levy is the decreased money market liquidity and compounded issues with the repo market. As a repo transaction increases a bank's cash balances, the repo market tends to disappear towards the end of the month when the tax base is calculated. Another factor hampering the repo market is the fact that treasuries held as repo collateral are included in mutual funds investment limits. So far, there is no central clearing

¹⁹ Hagemajer, Jan and Marcin Kolasa (2011), "Internationalisation and Economic Performance of Enterprises: Evidence from Polish Firm-level data," *World Economy*, vol. 34(1)

²⁰ McKinsey (2015): [How Poland can become a European growth engine](#).

of such transactions, even though KDPW (the state securities' depository) is prepared to take such a role.

Capital market development

Market-based finance and risk-bearing equity finance will need to play a bigger role to ensure sufficient risk financing.

Bank lending, no matter how adequate, is insufficient to finance riskier endeavours like innovation or expansion of small firms. Here, recent trends in local liquidity do not bode well. The lack of private investors is a problem for the nascent private equity sector, where fund raising remains below 50 per cent of pre-crisis levels. The number of IPOs on Warsaw Stock Exchange has decreased from 81 in 2007 to 12 in 2016, while the capital raised decreased sixteen fold in that period. The number of de-listings was higher than the number of IPOs in 2016.

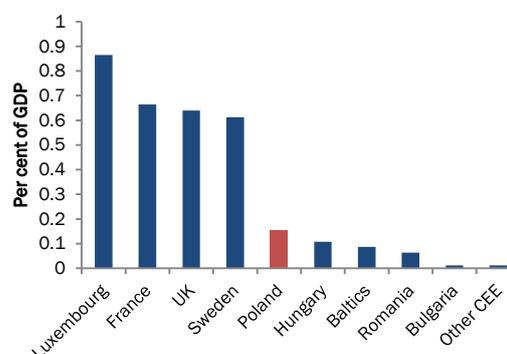
The smaller role of the private pension sector since 2011 and the (in general) low private savings rate weigh on capital market development.

The new strategy to raise pension savings, not yet turned into concrete bills, envisages a move to occupational and individual accounts. Introducing automatic enrolment into the private pension pillar would support both the capital market and private savings. The latter remain very low, risking the sustainability of the defined contribution pension system. The success of this (or any other pension reform straddling private and public institutions) will require much greater policy predictability, building trust in the state, good governance of state bodies which will initially manage savings pools, and matching support by employers.

Big new players in risk financing are the state and the EU. The scale of increase of funds for private R&D in Poland is unprecedented. The government's plans envisage increasing annual VC investment from €22 million to €165 million. The infusion of EU funds on SME R&D is projected to more than double. This is far more than in innovation transformation leaders like Israel or Finland. Basing of the "innovation funding tsunami" on EU funds risks discontinuity after the end of the financial perspective and skews the whole VC scene towards reliance on public funds (see Box 2).

The Polish corporate bond markets lag behind European peers. Average

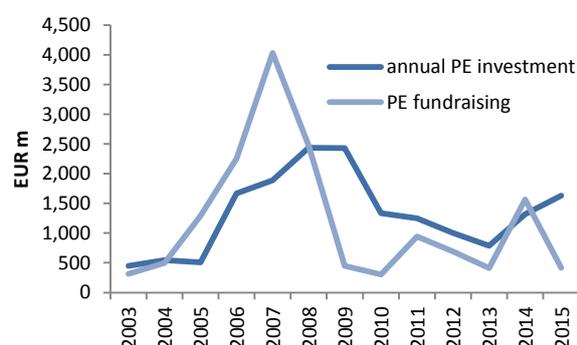
Figure 3.3.1: All Private Equity investments, per cent of GDP (2015)



Source: Invest Europe.

Note: Investments – industry statistics (by country of private equity firm).

Figure 3.3.2: Private Equity investment and fundraising in CEE, EUR million



Source: Invest Europe.

Note: Only regional data available for fund raising as most funds are of regional nature. Poland investment represents over 50 per cent of the region.

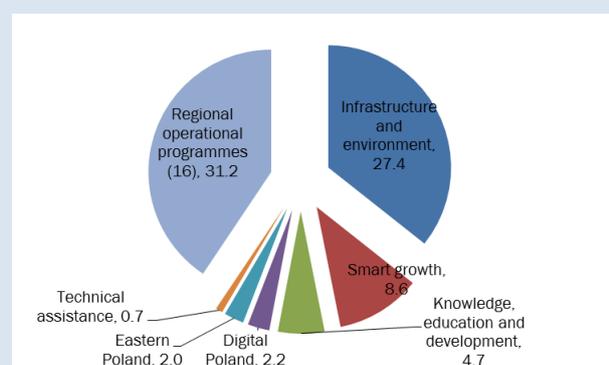
corporate bond market maturity is relatively short at 3.3 years, and turnover is low. The product mix also remains quite narrow and uneven. There is limited non-financial bond issuance, and covered bond issuance still lags behind most of Western Europe. Not many corporates can justify a €500 million single issue. Market participants complain about the time taken for issuance approval by the supervisor, which is naturally cautious where retail investors are involved. The investor base is overwhelmingly domestic and low liquidity makes pricing to market very unreliable.

Box 2 Managing EU funds well

The National Strategic Reference Framework, the key programming document in Poland's first full EU financial perspective of 2007-2013, sets out 21 national and regional programmes. The vast majority of the funds were spent on infrastructure (out of the total funds, 34 per cent was spent on transport only), human capital and innovation and entrepreneurship. The Operational Programme 'Innovative Economy' was one of the key support instruments for Polish SMEs, aiming at facilitating technology transfer, stimulating the business environment and enhancing cooperation between business and academia. National and regional authorities absorbed nearly two-thirds of the allocation, and enterprises just under a quarter.

EUR 8.3 billion of the previous funding round was allocated to innovation, of which the majority was devoted to public research infrastructure and private capital investment. An EU evaluation found that EU funds accounted for possibly up to half of the growth in R&D expenditures, mainly in medium sized enterprises. The study found that targeting adoption of technologies rather than innovation was appropriate, as was the attempt to work with low and medium technology companies, re-iterating the findings in the EBRD's 2014 Transition Report.

Figure 3.3.1: Operational Programmes, 2014-2020, € billion



Source: Breznitz and Ornston (2017).

Poland's allocation has now been increased relative to the overall EU budget. At €77 billion by end-2023, it is equivalent to an annual inflow of nearly 3 per cent of GDP, likely over 50 per cent of public investment. By 2023, the funds allocated will be utilised through 24 national and regional operational programmes. The thematic objectives will again be around infrastructure networks in transport and energy, though there will be a much greater emphasis on competitiveness of SMEs, the low-carbon economy, and research and innovation. (see Figure 3.3.1 for detailed OP distribution). The Ministry of

Development plays the key role as the principal managing authority, supported by several national agencies such as the BGK, the Polish Agency for Industry Development (PARP), the Polish Development Fund (PFR) and National Centre for Research and Development (NCBR), all of which are re-aligning themselves into new administrative structure. The 16 regional OPs are managed by Marshals' offices.

In addition to the traditional grants instruments that are coupled with local co-financing, roughly 5 per cent of Poland's allocation, or €3.4 billion, is to be implemented through so-called financial instruments. These are equity, loans and guarantees extended by state

institutions which attract private co-financing in addition to the grant funding from the managing authorities. The NCBR and the PFR, for instance, have established a fund of funds to finance seed investments and provide venture capital to technology companies, in particular those at an early stage of development. This may develop the capacity to fund beneficiaries on a more sustainable basis than would be the case for grants. At the same time, agencies such as NCBR or Polish Development Fund (PFR) may find it challenging to select and structure projects that appeal to private investors, while beneficiaries may initially be confused about the exact delineation of grants and commercial instruments.

The greater orientation towards SMEs and innovative companies, and the use of financial instruments will also present a number of challenges to the Polish government. Breznitz and Ornston (2017) highlight that the sudden and substantial influx of funds to a narrow set of activities and actors risks distorting prices and market structures to an extent that future innovative activity might in fact be inhibited (see Table 3.3.1).

Table 3.3.1 An “innovation tsunami”, € million

	Total Polish investments, 2014	Projected annual injection from Smart Growth OP ²¹	Projected annual injection from all sources ²²	Total annual projected investments
Business R&D expenditure	1,800	542	1,336	3,136
R&D expenditure by SMEs	700	433	1,069	1,769
Venture capital investment	22 ²³	77	143	165

Source: Breznitz and Ornston (2017).

Sensible use such large European funds requires considerable upgrades in administrative capacity and a much wider distribution of funds, supported also by better coordination between public institutions and enterprises, and within the private sector itself. Given the uncertainty over the future of the structural funds beyond the current funding round, preserving and setting up structures that can be sustained on a commercial basis will be required to ensure growth of the knowledge-based economy in the medium term.

3.4 Strengthening the independence of state institutions and improving governance of state-owned enterprises (SoEs) would make Poland better-governed and its private sector more competitive.

While the state’s ownership share in total equity of the corporate sector is modest, state influence extends to an unusually wide range of sectors. Since the late 1980s, Poland moved from over 70 per cent of GDP produced by the state sector²⁴ (with the private sector contributing mostly via agriculture and small business) to just 15 per cent of output generated by the public sector in 2014. Despite those processes, Poland leads in “scope of SoEs”, according to OECD data, with the state controlling at least one firm in 39 out of 43 sectors, and in “direct control over business enterprises”, illustrated by the presence of constraints to the sale of the stakes held by the government and maintenance of some special voting

²¹ Estimate only includes the European Union’s contribution to the Smart Growth OP. We assume the funds will be spent in a seven-year period. While some funds may be spent after 2020, the Polish government has also gotten off to a late start in administering these funds.

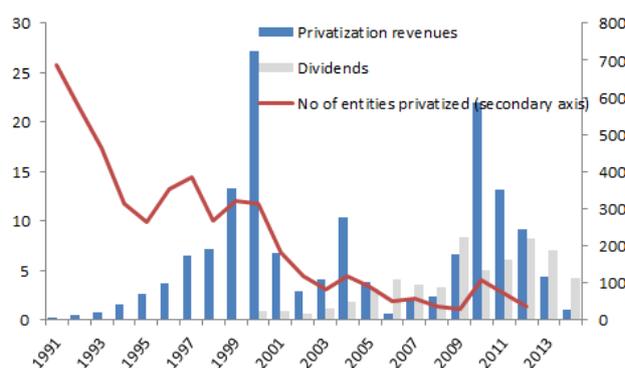
²² Includes contributions from all sources including the European Union, the national government, regional funds and private sector co-investment.

²³ Figure includes seed, early and late stage investments ([Invest Europe statistics](#), 2015).

²⁴ Kozarzewski P., Baltowski M. (2016): [Change in economic policy paradigm: privatization and state capture in Poland](#).

rights.²⁵ In both aspects Poland ranks in worst place of the latest OECD indicators product market regulation database. State presence remains in the majority of sectors, and is most dominant in mining, finance, energy and utilities and transportation.²⁶ Out of the 20 biggest companies listed on the Warsaw Stock Exchange (WSE), 12 are controlled by the state, effectively representing almost 81 per cent of the total capitalisation of its main index – WIG20.

Figure 3.4.1 Privatisation revenues (PLN bn), and number of transactions



Source: Ministry of the Treasury.

Note: Data on dividends available from 2000 only.

not reveal major differences. This could indicate preferred market access or adequate past management of SoEs. In banking and energy (sectors where both state-owned and private companies are listed) we found no indication of systematically worse results linked with state ownership. It is hard to generalise these results, as they could be linked with better governance in listed SoEs. Selectively revealed data from the (now disbanded) Ministry of Treasury indicate that companies where the state is the sole shareholder are doing worse than where mixed ownership is present.²⁷

SoE dominance in a sector can shape the competition and influence profit margins. Based on ORBIS data, an upcoming EBRD study²⁸ found that state dominance creates preferential conditions for SoEs development and a substandard environment for private firms. SoEs get a market premium and limit competition.

A 2016 survey showed Poland ranked at seventh lowest place out of the OECD's 33 countries in SoE governance.²⁹ There is limited transparency on the extent of state ownership, ownership roles are split between several ministries, and targets for financial performance are obscure. Evaluation of boards is irregular and inconsistent. Even where the

The privatisation process has slowed (see Figure 3.4.1) and effectively gone into reverse over the past decade. Statistics and EU fiscal rules played a surprisingly strong role in the first half of 2010s; SoE dividends reduce the general government deficit, while sale of assets is just a budget financing item, influencing debt. The current government's strategy sees a stronger role for state ownership, putting a halt on privatisation altogether.

Comparing the performance of state-owned and non-state owned listed companies over the past years does

²⁵ State control is second highest after Turkey among all 33 OECD countries in the survey: OECD (2014), The size and sectoral distribution of SoEs in OECD and partner countries. Underlying data: [OECD product market regulation indicators](#) (2013).

²⁶ The transparency on the size of the state sector is limited and reliable data is hard to obtain. For example, OECD dataset, indicating low SoE employment share excludes minority non-listed SoEs, indirect ownership in dependent entities. In the forthcoming paper on the role of SoEs on which this section is based (Markiewicz, 2017, Importance of SoEs in the Polish economy), we use ORBIS, WSE, government data, each exhibiting some drawbacks.

²⁷ Ministry of Treasury (2015), Sprawozdanie o stanie mienia Skarbu Państwa na 31 grudnia 2014 roku

²⁸ Markiewicz (2017): Importance of SoEs in the Polish economy, forthcoming.

²⁹ OECD (2016): Compendium on SoE Governance, Working Party on State Ownership and Privatisation Practices, unpublished document available on OECD OLIS.

state only holds a minority stake in a listed entity, special privileges, including golden shares or special provisions in company charters, award undue influence to the politicians.

The new law governing the management of SoE could potentially introduce some positive elements. These include centralisation of the coordination of management in the Prime Minister's office, softening salary limits (amidst a reduction of net severance pay). Unfortunately, implementation so far has been problematic. The practice of switching from dividends to capital transformations generating corporate profit tax payment discriminates against non-government shareholders. Ownership roles still remain effectively split between several ministries, as shown in the seemingly erratic process of selecting some CEOs. CEO turnover at the most important SoEs over the past year has exceeded 100 per cent (in some companies there was more than one change in these positions), disrupting continuity and investment decisions. Preventing the tendency of turning the board and senior management selection into a spoils system requires either privatisation or a general improvement of norms and political culture.

Management in the public sector should contribute to a “sustainable growth in shares values, considering the economic policy of the state”, according to the law introduced in 2017. It is not clear what is understood by sustainable growth and how achievement of such a goal should be measured and with what frequency. Transparency in stating and measuring these goals for individual firms would allow a price to be put on the burden for SoEs charged with fulfilling “economic policy of the state”. It would also help to protect minority shareholders in mixed ownership companies.

Wider usage of public private partnerships (PPPs) could improve innovation in providing better public services through improved operational efficiency. Also, it would enhance the exposition of SoEs and the government to greater private sector participation and ensure transfer of skills. PPPs can also supplement limited public sector capacities to meet the growing demand for infrastructure projects

3.5 Diversifying the energy mix away from hydrocarbon sources and improving energy efficiency will help Poland capture the substantial opportunities in the global transition to the Green Economy and tackle major air quality issues

Poland has a level of energy intensity more than two times higher than the EU average, which is encouraged by large deposits of fossil fuel. More than a half of the total primary energy supply still comes from coal, followed by crude oil, and 80 per cent of the energy production is from coal. Poland is the 9th largest producer of coal in the world.

There is considerable potential in improving energy efficiency through energy generation, distribution and demand. From the supply side, significant efficiency could be gained through the reduction of coal-based technologies which are often outdated and locked-in for decades. In terms of energy demand, the residential sector consumes about 40 per cent of the country's primary energy, primarily for heating, and 70 per cent of private houses remain poorly insulated. Energy distribution remains an area for further improvement. As the district heating networks are the most efficient in terms of heat supply, the operational efficiency of heat generating sources could be better utilised through extended heating networks, as opposed to individual heat boilers. Within industry, the largest energy consumers include the chemical, mineral, iron, steel and food industries, accounting jointly for about 60 per cent of total energy consumption. It is worth noting that SMEs (contributing to over 48 per cent of Polish GDP and employment to 70 per cent of the working population)

have long remained outside the scope of the various national programmes supporting sustainable energy improvements. This is an untapped source for efficiency gains.

As a by-product of high energy and carbon intensity, Poland is among the most air polluted countries in the EU in terms of particulate matter. According to the World Health Organisation, 33 out of Europe's 50 most polluted cities are in Poland. According to European Environment Agency, more than 1,500 years of life lost (per 100,000 inhabitants) are attributable to air pollution, which is the second worst case in the EU, after Bulgaria. About half of pollutants are generated by residential heating, largely caused by obsolete boilers and low-quality coal. Such fuel remains free of any environmental tax. In December 2015, the European Commission decided to refer Poland to the European Court of Justice over persistently high levels of dust particles, posing a major risk to public health. There is reform progress in the area, both on a municipal level and centrally, as the government issued an air quality directive restricting production and use of polluting heating installations.

Lack of consistency and instability of regulations prevent Poland from capturing the opportunities in emerging industries linked to new energy sources.³⁰ They also distort energy prices and provide inadequate and late adoption of incentives, effectively inhibiting more efficient energy usage and reduction of GHG emissions. In particular, the right regulatory framework incentivising renewables and other green economy sectors could be leveraged further (see Box 3). Also, although the implicit tax rate on energy increased by 44 per cent since EU accession in 2004, it remains significantly below EU-28 average level. Poland also lacks an emissions-based tax on vehicles. Overall, 25 per cent of the total GHG emissions are not priced by any tax or emission trading schemes (ETS), which comes slightly above Poland's CEB peers. On the plus side, taxes price 62 per cent of GHG emissions from energy use, whereas the EU ETS prices 53 per cent. Sectors with the highest tax/ETS coverage are electricity, road transport and industry, in contrast to the residential/commercial sector with a share of only 8 per cent of emissions being internalised.

Waste treatment has improved over the past years, largely due to an increased landfill tax, but significant gaps still remain in reaching the EU's waste targets. Poland is the 6th biggest producer of municipal waste in the EU and needs to adapt to tightening EU regulations. Statistically, quantities of waste produced are usually larger than those collected, with the missing tonnages usually being dumped in forests or burned in domestic boilers (also source of air emissions and contributor to poor air quality in areas not covered by district heating) to avoid waste disposal costs. Recycling has increased from 4 per cent of the generated municipal waste (MSW) produced in 2001 to 42.5 per cent in 2015, substantially above the CEB average of 31 per cent and close to the EU-28 average of 45 per cent. Following the increase of landfill tax in 2008, the amount of landfilled MSW dropped from 74 per cent in 2007 to 44 per cent in 2015, though still substantially above the EU-average of 26 per cent. The increase in fees has little impact on the incineration of MSW (including energy recovery), which at the level of 12 per cent is below the EU-average of 23 per cent.³¹ Incineration of sludge waste is also limited.

Box 3 Diversifying Poland's energy mix

Pricing and incentives set in the energy policy of Poland's new government will be critically important, as the new investments will determine the energy mix for decades to come.

³⁰ This is particularly striking, given the current government's industrial policy aimed at supporting such areas as e-mobility.

³¹ European Environmental Agency (2016): [Municipal waste management](#).

Competition in the gas segment and better integration into a gradually liberalising EU gas market remain key challenges. Some improvements were evident as the first LNG terminal entered operation in late 2015, and a number of gas pipeline investments integrating the Polish transmission system into the European market have been initiated. However still enormous investments in infrastructure, for instance in gas storage, will be needed to secure a sustainable supply. Improvement in the competitive environment was evident in: (i) the implementation of the third party access (TPA) regulations, (ii) investments in reverse flow into the Jamal gas pipe, and (iii) introduction of a gas market.

Until recently, Poland was considered on track to achieving its renewable energy target under EU legislation, which requires a 15 per cent share of renewable energy in gross final energy consumption by 2020.

Driven by social and grid stability concerns, the new government has significantly restricted the growth of on-shore wind technology in Poland. In early 2016 a minimum distance requirement was imposed, which disqualified the vast majority of potential turbine locations; therefore the growth in renewables' electricity production is expected to slow substantially. Reaching the national target may now become considerably difficult.

The share of renewables in electricity production is two times lower than in the EU-28, and estimated at 12.4 per cent. Solid biofuels (wood and wood waste) dominate in the renewable energy sources, followed by liquid biofuels and wind. A significant portion of this realisation is linked to co-firing of biomass in conventional coal boilers, which is not considered sustainable.

With the on-shore wind sector experiencing a slow-down, there are technically and economically available renewable energy resources in biomass (with resources estimated at 755 PJ/year), solar and offshore wind energy. A transparent regulatory environment and adequate support mechanism are prerequisites to exploiting this potential.

The main policy instrument to support renewable energy production – in the form of green certificates – has undergone long and complex changes over recent years. It has now been converted into an auction-based support system based on the feed-in premium/feed-in tariff regime. The authorities managed to avoid drastic retroactive changes as they were imposed in several countries, but this has undermined investors' confidence and the economics of existing projects. The new tax was levied and certificates quotas decreased, which undermined the financial viability of operational wind farms in their remaining lifetime. At the same time, the authorities have committed to support the development of cost efficient renewable energy sources. This is reflected in the government's strategic documents, as well as in a new clear placeholder in the regulatory set-up for off-shore wind farms. Amid the two auctions, organised in December 2016 and June 2017, these are positive signals, and in the medium term biomass and biogas could offset the slower development in the wind segment. The regulatory changes were finalised and enacted mid-2016, but the detailed interpretation and practical implementation are key determinants of their effects.

The new regulation also introduces incentives for micro-generation, especially directed at retail users and public sector entities, by enabling a clear net-metering regulations as well as the possibility for storing own production within the distribution grid. This is expected to have a positive impact in stimulating small scale renewables (including PV and micro-cogeneration). However this subsector would require innovative financing to exploit scale. Overall the share of biogas, biomass and waste in renewable generation is significantly behind western peers. District heating represents one of the key areas to ensure a meaningful reduction in pollution and the carbon footprint in the short to medium term.

Annex 1: Qualities of sustainable market economy - Poland

Competitive (ATQ score: 6.38)

Over the last two decades, Poland has been one of the fastest growing world economies in the world. Since 1989, the country's GDP per capita more than doubled with more than 70 per cent coming from total factor productivity improvements. The diverse Polish economy supports the relatively efficient allocation of resources, while the growing internal market helps absorb some of the external shocks. R&D spending and innovation in the private sector remains limited, which will constrain the country's competitiveness.

Market structures and institutions:

- Poland has a **good business environment** (it ranks 24th in the World Bank's 2017 Doing Business report). The business obstacles flagged in BEEPS V are a burdensome tax administration (1st largest obstacle, but subject to large changes of late) or a high presence of informal sector (2nd largest obstacle).
- **SoEs and market regulations distort competition.** Poland still has a wide presence of SoEs. The number of regulated professions was reduced significantly in the past 10 years, but still remains high.
- **Labour market is not fully efficient.** The labour market remains segmented between permanent and temporary employees (1/4 quarter of employees have fixed-term contracts; one of the highest in OECD). Labour participation is low among youth and elderly.

Economic complexity index:
27th out of 124 countries

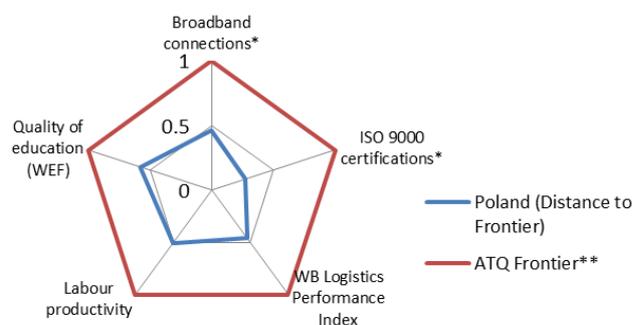
Global Innovation Index: 39th out of 128 countries (46th in on innovation outputs)

10th in Ease of Doing Business 2017 (out of 190 countries)

Capacity to create value-added

- **Innovation and knowledge-intensive activities are limited.** Poland is 23rd (of EU-28) in the European Innovation Scoreboard; it spends only 0.94 per cent of GDP on R&D (vs. 2.4 OECD average). Low innovation contributes to the recent total factor productivity growth slowdown.
- **Labour productivity** level is at 70 per cent of Germany, below Slovakia and Slovenia's but above that of the other EU new members. Few Polish-owned firms expand internationally to reach economies of scale.
- **Business sophistication needs to be improved.** Poland has a low share of economic clusters, the economy is driven by low-cost labour and natural resources rather than unique products and processes. ISO certifications per population are only 12 per cent of the EU leader, Italy.

Competitive ATQ: Selected indicators

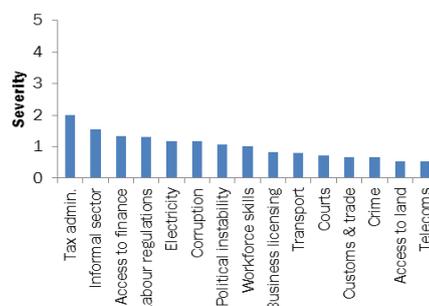


Source: EBRD calculations.

* per population

** a synthetic country from EBRD and a selected number of OECD countries.

Business environment obstacles (BEEPS V)



Source: [EBRD BEEPS V](#) (survey conducted in 2013). Note: Higher values correspond to a more severe business environment obstacle. (5 is the most severe obstacle).

Resilient (ATQ score: 7.64)

On most accounts, Poland is a resilient market economy. **Macroeconomic resilience is aided by a remarkable diversity of the economy, augmented with exchange rate acting as a shock absorber.** Taking into account capital account surplus linked with the EU fund inflows, the Polish economy is balanced externally. Poland is a major food exporter (€7.7 billion net in 2015 six times more than in 2005). The country also reduced its dependence on natural gas from Russia, with more than 2/3 of the annual consumption that can be sourced via LNG supplies or western or southern interconnectors.

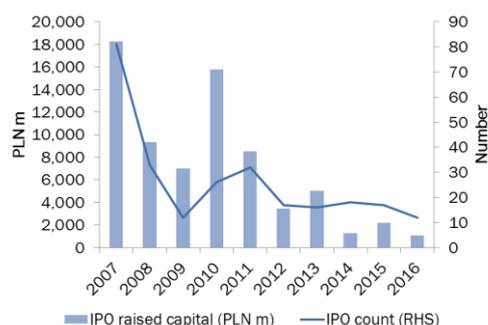
- **Financial resilience is solid.** Bank supervision is strong, capital adequacy was at high 17.3 per cent in Q3 2016, and deposit insurance system remains well funded. Financial stability problems are limited to relatively small credit union and cooperative bank sub-sectors. NPLs at around 7 per cent of gross loans are not problematic, given the solid provisioning and well-developed market for distressed assets. Financial stability issues would have to be self-inflicted, e.g., by the forced conversion of CHF loans at the historical exchange rate.
- **Fast aging of the population is a concern for the macroeconomic resilience of the economy.** By 2025, the working-age population will fall by more than 10 per cent. The process of labour supply decline will likely accelerate due to the reduction of the retirement age in 2017. Age-related health and long-term care costs will increase from the current relatively low levels. Despite the switch to notional defined contribution system, pension costs may be pushed higher by political pressure on the minimum entitlement.
- **Energy generation and infrastructure is obsolete.** About 17 per cent of the installed capacity is scheduled for decommissioning by 2022. This creates a significant risk that the sector may fail to secure reliable energy supply. This risk was starkly underlined by power outages in 2015, when peak demand overwhelmed poorly developed electricity interconnectors to neighbouring countries.
- **Capital markets still have catch-up potential relative to the more developed markets.** The Warsaw Stock Exchange (WSE) emerged as a regional centre for equity issuance and trading. Since 2015, however, this trend has waned as domestic sources of institutional investment capital dried up. The reversal is due to a mixture of regulatory impediments (e.g. pension fund regulation changes), lack of domestic savings pools, and policy risk which has undermined valuations, in particular for banks.

Regulatory **capital to risk-weighted assets** stands at 17.3 per cent in Q3 2016.

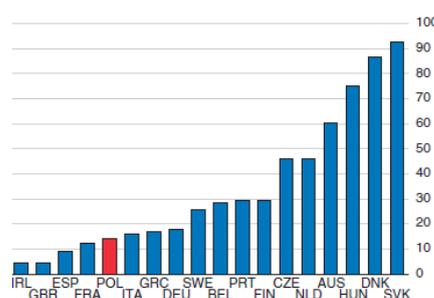
NPL ratio at 7.2 per cent (corporates: 6.2 per cent, households: 9.2 per cent) in Nov 2016. **Corporate debt**, at about 46 per cent of GDP, is well below the regional average.

Energy dependence is modest, 29.3 per cent of consumed energy is imported.

Private equity (PE) represented only 1.7 per cent of total PE investments in Europe in 2015.

IPO market on the WSE

Source: WSE, EBRD calculations.

Electricity openness

Source: OECD (2016): [Economic Surveys: Poland](#). Note: Electricity openness is calculated as the ratio of electricity imports plus exports to

Green (ATQ score: 6.56)

Poland remains one of the most carbon intensive economies of the EU. In 2005, the country introduced a renewable support scheme for electricity generation based on green certificates, which managed to trigger significant renewables investments from private sector.

The development stopped in 2016 following changes in the regulation, which have made new installations very difficult to build. The new support scheme, based on competitive auctions, has been finally launched after several years of delay, but its effectiveness in translating into new investments remains to be proven. Furthermore, hard coal and lignite remain heavily subsidised by the government, leading to a concentration of energy intensive industries, which not only deter investment in renewable energy sources, but also negatively contribute to air quality. Poland has ratified the Paris Climate Agreement.

- **Poland has energy intensity more than two times higher than the EU average.** This is encouraged by domestic deposits of fossil fuels; Poland is the biggest producer of hard coal in the EU. The pipeline of 14 new coal-fired power plants as may reinforce this trend, also poses significant climate change and air quality risks. Until very recently this has been partly counterbalanced by the country's progress on achieving the EU renewable energy target. However, following the regulatory changes, this will be put at risk unless substantial new investments come on line in the next few years.
- **Air pollution is a major environmental issue**, which is home to 7 out of 10 cities/towns in the EU with the highest level of particulate matter (PM2.5 and PM10). The pollution emission levels are well above the EU standards and WHO recommendations and estimated to cause over 40,000 premature deaths a year. Air pollution is linked both to coal fired installations and to a growing use of private vehicles. The share of respective transportation modes remains far from optimal, with above 80 per cent represented by passenger cars.
- **Another area where improvements can be achieved is linked to resource efficiency and recycling.** Although Poland is taking steps to improve its waste treatment, a large part of the country's municipal waste is still being disposed of in landfills. Poland landfilled 44 per cent of its municipal waste in 2015, which is well above the EU average (26 per cent), which indicates the need for waste management improvement to meet the EU's 50 per cent municipal waste recycling target in 2020.

Carbon intensity is at 0.52 kg CO₂/GDP against the EU average of 0.18 kg CO₂/GDP

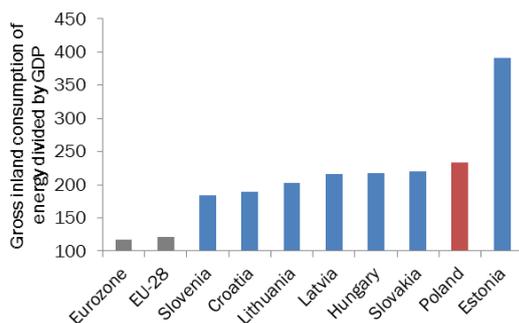
Share of renewables in the energy mix is only 11.4 per cent, still below the government's target of 15 per cent

Technical onshore wind potential is 32.5 GW, with ca. 5.7 GW installed

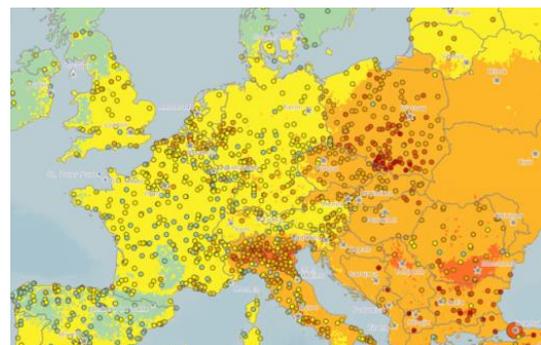
Recycling rate of municipal waste is at 42.5 per cent, still significantly below the EU average

33 out of 50 highest **PM2.5 polluted cities** in Europe are in Poland

Gross consumption of energy divided by Ambient air pollution, PM2.5 concentration GDP



Source: Eurostat (2016).



Source: WHO (2017): [Global ambient air pollution](#).

Inclusive (ATQ score: 6.29)

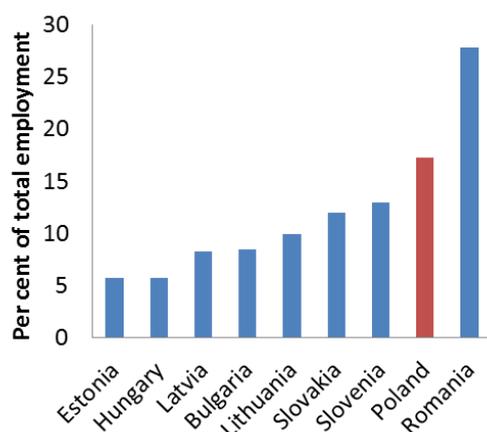
Poland is a relatively inclusive economy. In terms of gender equality, Poland ranks high in the UNDP Gender Inequality Index, third in the CEB region and 28th globally in 2014. However, certain gaps remain in labour force participation and earnings. Youth and elderly employment still remains below EU-wide standards. Substantial EU fund inflows allowed the disadvantaged regions to somewhat catch up with the income levels in Western Europe. Still five regions (of 16) have GDP per capita (PPP) below 50 per cent of the EU average.

- **Inadequately trained workforce is a major or severe obstacle to business** for 14 per cent of enterprises, substantially more than in other CEB economies (BEEPS V). Training opportunities for entrepreneurship are limited, with 33 per cent of the adult population having access to such training, which is well below levels observed in Estonia and Slovenia (at 65 per cent).
- **Formal childcare for less than three years remains low.** Whereas the number of childcare facilities for children under three more than quadrupled between 2011 and 2015, the coverage is still low, at only 1.1 per cent, below the EU-28 average of almost 15 per cent.
- **Vulnerable employment is high.** People engaged as unpaid family workers and own-account workers amount to 17 per cent of total employment, significantly above other CEB countries.
- **Vocational education and training (VET) is not at all aligned with labour market needs.** In 2014, nearly half of Poland's upper secondary students participated in VET (about the EU average). Only about two thirds of VET graduates aged 20-34 were in employment.³² VET reforms are ongoing but better cooperation between firms and public VET schools is needed. Among the key challenges are work-based learning, and improvement of teachers' skills.

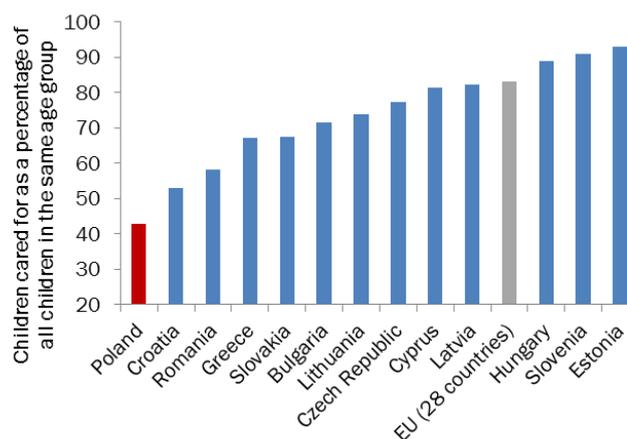
Employment rate of women is only 61 per cent, below the EU average (64 per cent) and the employment rate of men (75 per cent)

Participation rates in **childcare and pre-school services** are at only 11 per cent (OECD average: 34 per cent)

Adult (25-74) participation rate in learning is only at 3 per cent (EU-average: 10 per cent)

Vulnerable employment, 2015

Source: International Labour Organization.

Any formal childcare between 3 and compulsory school age, 2015

Source: Eurostat.

³² EC (2016): [Education and Training Monitor](#).

Integrated (ATQ score: 6.79)

Poland has significantly increased its integration with the global economy. Among rising trade flows particularly within the EU, Poland has attracted a substantial amount of foreign direct investment (FDI), which to some extent fostered domestic productivity growth.

- **Polish exports are large and diversified.** International trade accounts for 100 per cent of GDP, with exports representing a half of it. The country has a thriving agricultural sector, auto parts industry, strong exports in aviation and shipbuilding sectors, cosmetics, minerals, plastics and textiles. Business services, banking and tourism are also well developed.
- **Compared to the size of the economy the inward FDI stock remains modest.** It stands at 45 per cent of GDP, whereas the same ratio in Hungary is 78 per cent.³³ Smaller openness measures compared to other CEB countries, can be explained by the much larger size of the economy. Germany and France are the principal investors, jointly accounting for about 30 per cent of the inward FDI stock; manufacturing and business services are the key target sectors.
- **Outward investment is low.** In 2015 the stock of outward investment stood at about 6 per cent of GDP. This extent of outward investment presence is in line with that of other new EU member states, such as Bulgaria or Lithuania, though it is well below other OECD countries (above 43 per cent).
- **Infrastructure quality remains poor.** Despite substantial infrastructure investment since the EU accession in 2004, motorway density remains relatively low and the perception of transport infrastructure quality belongs to the lowest among the OECD countries.
- **Broadband access remains below CEB peers.** In 2015, about 70 per cent of the population uses the internet, whereas in Estonia and Latvia such rates are around 90 and 80 per cent, respectively.

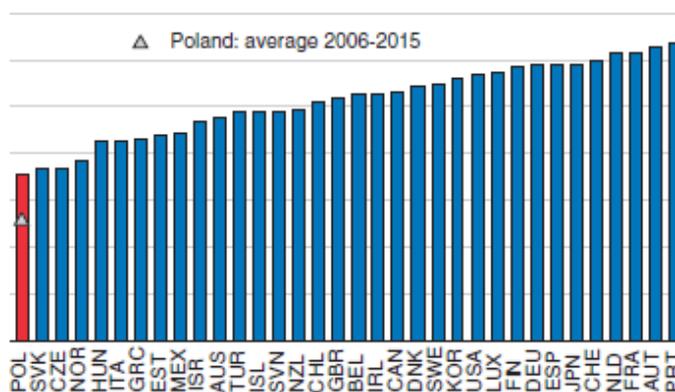
International trade stands at 100 per cent of GDP, compared to 176 per cent in Hungary and 185 per cent in Slovakia.

Inward FDI stock stands at 45 per cent, which is close to OECD average, although the same ratio in Hungary and Slovakia are 88 per cent and 56 per cent, respectively.

Outward FDI is much less developed, at 6 per cent of GDP.

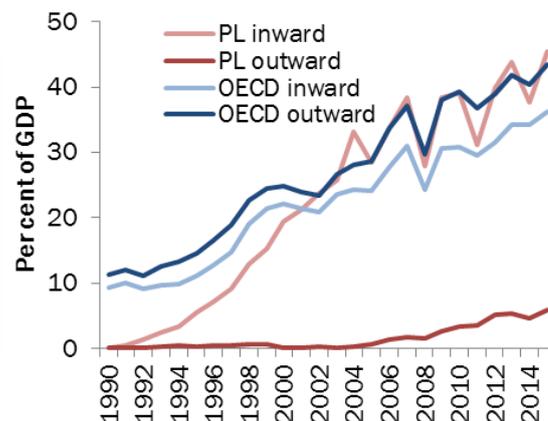
In the **quality of infrastructure** Poland ranks only 65th, out of 138 economies in the WEF's Global Competitiveness Report.

Perception of transport infrastructure quality



Source: OECD (2016): [Economic Surveys: Poland](#).
 Note: Index from the lowest perceived quality (0) to the highest (7).

FDI stock



Source: UNCTAD.

³³ UNCTAD (2015): [FDI statistics](#). This refers to accumulated inflows, which ignore valuation effects and depreciation.

Well-governed (ATQ score: 6.15)

Since 1990, and in particular since the EU accession in 2004, the quality of Poland's institutions substantially converged to the standards observed in other OECD countries. Nevertheless, areas dominated by the state, such as in state-owned enterprises (SoEs) or the judiciary still lack sufficient transparency, accountability and checks and balances.

- **The state controls at least one firm in 39 out of 43 sectors** that raises the question of the influence of SoEs on the competitiveness of other firms and interference into the economic relations. State is dominant in strategically important sectors like transport, mining, gas, energy. Governance of state assets and within state-owned companies could be weakened by the sweeping, politically-motivated changes to SoEs management and boards of directors.
- **Judiciary is a bottleneck in contract enforcement.** According to the World Bank Doing Business report, Poland stands 55th position in the measure of time and cost required in resolving a commercial dispute through a local, first instance court. Courts and the Supreme Administrative Court continue to accumulate a backlog in commercial cases reaching 70 per cent of new cases registered in 2015.
- **Board effectiveness is the weakest element of corporate governance.** By law, the supervisory board in companies has no clear authority to approve the company's strategy, risk profile and budget. Evaluation of boards' work is rare. In non-bank companies, the authority to appoint the management can be assigned to the general shareholders' meeting.
- **The European Commission and the Council of Europe have been questioning the rule of law in Poland.** This concerns the position of the Constitutional Tribunal and proposed changes allowing government's influence over operation of the courts. Sweeping changes to the civil service and SoE could result in the undermining of continuity of state institutions.
- **Pace of legislative acts' production is the fourth highest in the EU.** The number of arising law acts is so high that an average entrepreneur would need to spend four hours a day in order to only flip through all emerging regulations. Firms in Poland are systemically exposed to breaking the law, as it remains impossible to familiarise with all changing regulations during regular business hours.

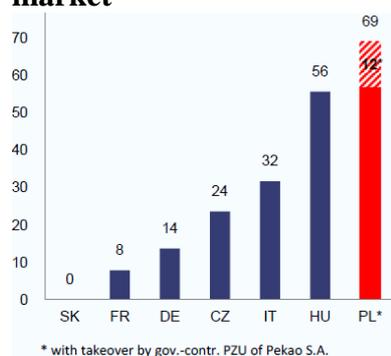
In the World Bank **Worldwide Governance Indicators**, Poland scores below OECD-average for all sub-indicators, especially in control of corruption, government effectiveness and rule of law.

Informal sector is listed as one of the key business environment obstacles in the EBRD BEEPS survey.

Poland has **second highest** (after Hungary) number of **SoEs** among OECD countries. Their equity value is about 10 per cent of GDP and employment 1.4 per cent of total employment.

Board effectiveness is assessed as weak in the EBRD Corporate Governance report.

Share of SoEs in the main stock market



Source EC (2017): [Country Report](#).
Note: Calculations based of ORBIS.

Worldwide Governance Indicators



Source: [WB Governance Indicators](#).

Characterising qualities of sustainable market economy

The Assessment of Transition Qualities (ATQs) scores are based on a distance to frontier approach, with best performing countries used as benchmark. Resulting scores are rescaled to 1 – 10, where 10 represents frontier. The following characteristics under each of the qualities were considered.

	Components	Sub-components
Competitive	Market structure that supports competition and incentives for sound decision making	Openness
		Dynamic structures
		Institutions
		Business skills
	Capacity to add value and innovate	Value chains
		Knowledge / ICT
		ICT infrastructure
		Infrastructure
Well-governed	National-level governance	Quality of public governance
		Integrity and control of corruption
		Rule of law
	Corporate-level governance	Corporate governance frameworks and practices
		Integrity and other governance-related business standards and practices
Green	Climate Change Mitigation	Physical indicators
		Structural indicators
	Climate Change Adaptation	Physical indicators
		Structural indicators
	Other environmental areas	Physical indicators
		Structural indicators
Inclusive	Gender	Legal regulations and social norms
		Access to health services
		Education and training
		Labour policy
		Labour practices
		Employment and business
	Youth	Access to finance
		Labour market structure
		Youth employment
		Quantity of education
		Quality of education
		Skills mismatch
	Regions	Financial inclusion
		Institutions
		Access to services
Resilient	Financial stability	Financial sector
	Energy sector resilience	Liberalisation & market liquidity
		System connectivity
		Regulation and legal framework
Integrated	Trade (external dimension)	Trade
		FDI
		Balance of payments openness
	Infrastructure (internal dimension)	Cross-border infrastructure
		Domestic infrastructure quality
		Energy
		ICT