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POLAND **PUBLIC FINANCE** REVIEW





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The main authors and contributors to the report were:

Executive Summary was produced by Cristina Savescu.

Chapter 1 was written by Cristina Savescu and Collette Mari Wheeler with contributions from Sergiy Kasyanenko.

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Acronyms

AP	Aspirational Peers (South Korea, Germany, and US)
AQLI	Air Quality Life Index
ARWU	Academic Ranking of World Universities
BGK	Bank Gospodarstwa Krajowego
BOS	Bank for Environmental Protection
CASE	Center for Social and Economic Research
CEE	Central and Eastern Europe
CEE10	EU member states from Central and Eastern Europe
CenEA	Center for Economic Analysis
CIT	Corporate Income Tax
CO2	Carbon Dioxide
CSR	Country Specific Recommendation
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortization
EC	European Commission
ECA	Europe and Central Asia
EEA	European Environment Agency
EMDE	Emerging market and developing economies
ESA	European System of Accounts
ETS	Emissions Trading System
EU	European Unition
EU27	EU (current members)
EU28	EU (current members plus UK)
EUPACK	European Public Administration Country Knowledge
FDI	Foreign Direct Investment
FUS	Social Insurance Fund (Fundusz Ubezpieczeń Społecznych)
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GFCF	Gross Fixed Capital Formation
GHG	Greenhouse Gas Emission
GUS	Statistics Poland (Główny Urząd Statystyczny)
IBS	Institute for Structural Research
IFS	Institute for Fiscal Studies
ILO	International Labour Organization
IMF	International Monetary Fund
IP	Intellectual Property
KAS	National Revenue Administration
MoED	Ministry of Economic Development
MoF	Ministry of Finance
NBP	National Bank of Poland
NDC	Notional Defined Contributions
NFOSiGW	National Fund for Environmental Protection and Water Management
NFZ	Polish National Health Fund
NRA	National Revenue Authority
NRP	National Reform Program
	-

NRRP	National Recovery and Resilience Program					
OECD	Organisation for Economic Co-operation and Development					
OFE	Open Pension Funds (Otwarte Fundusze Emerytalne)					
PEP2040	Energy Policy of Poland until 2040					
PFIC	Passive Foreign Investment Company					
PIE	Polish Economic Institute					
PISA	Program for International Student Assessment					
PIT	Personal Income Tax					
PLC	Tax on Civil Law Transactions					
PM 2.5	Fine particulate matter					
R&D	Research and Development					
RDC	Research and Development Center					
RRF	Recovery and Resilience Facility					
SCD	Systematic Country Diagnostic					
SEZ	Special Economic Zone					
SGI	Sustainable Governance Indicators					
SME	Small and Medium-sized Enterprise					
SP	Structural Peers (Chile, Czech Republic, Hungary, Romania, Mexico)					
SPM	Split Payment Mechanism					
SPV	Special Purpose Vehicle					
SSC	Social Security Contribution					
TECM	Tax on the Extraction of Certain Minerals					
U.K.	United Kingdom					
VAT	Value Added Tax					
VET	Vocational Education and Training					
WEF	World Economic Forum					
WHO	World Health Organization					
ZEW	Leibniz Centre for European Economic Research					
Zl	Polish Zloty					
ZUS	Social Insurance Institution					

EXECUTIVE SUMMARY

Poland's public finance management was prudent in the years preceding the COVID-19 pandemic and facilitated a swift, substantial, and frontloaded policy response to the crisis. Poland built fiscal buffers in the years before the COVID-19 pandemic through spending containment and improved tax collections, aided by robust growth. This created the fiscal space needed to respond to the COVID-19 pandemic, which affected lives and livelihoods and triggered Poland's first annual output contraction in 30 years. The fiscal deficit and debt level deteriorated markedly in the wake of the crisis. Even though the pace of fiscal adjustment is expected to ensure public debt sustainability, debt is projected to stabilize at a higher level than expected before the crisis commenced.

Coming out of the crisis, Poland could make better use of public finances as a powerful tool to foster green, resilient, and inclusive development. Once the economic recovery is on a solid footing, revenue and expenditure measures will be needed to rebuild fiscal space. As part of this process, fiscal policy could be reoriented to better prioritize growth-enhancing investments and to support a just transition to a low-emission economy, which will require significant public and private resources. The fiscal, economic, and social costs of such a transition need to be weighed against the costs incurred in the business-as-usual scenario.¹ Meanwhile, demographic changes are a source of fiscal pressure in the longer term and will likely strain the health care and pension systems, posing challenges for fiscal sustainability and inclusion.

The Poland Finance Review examines the implications of these trends for fiscal management and recommends measures to help support the green, resilient, and inclusive agenda.

Strong institutions are critical to support these shifts in fiscal policy. High-quality and effective institutions are critical to design and implement fiscal policies in a strategic and accountable manner. Improved consistency of public policies, commitment to achieving strategic objectives, coordination across levels of government, and cooperation with other stakeholders are key to strengthening institutions in general, but particularly in relation to the use of public resources. Enhancing budget institutions and an improved tax system are also critical to ensure high-quality public finances that support Poland in achieving its development goals. The Poland Finance Review examines challenges in Public Financial Management and fiscal transparency in Poland, focusing on the budgeting and accounting systems, as well as on fiscal transparency practices, and recommends measures to address them.

Poland rebuilt fiscal buffers in the years prior to the COVID-19 crisis

Poland replenished its fiscal buffers in the years leading up to the COVID-19 pandemic, but new social spending initiatives contributed to a deterioration in the structural deficit. Fiscal consolidation measures, improved revenue collection, com-



bined with robust GDP growth, helped to rebuild fiscal buffers that had eroded in the wake of the global financial crisis and the euro area debt crisis. Sustained efforts to rein in spending and increased tax revenues helped to cut Poland's fiscal deficit by half from 2010–14, with a brief interruption during the European debt crisis on account of weak growth. Robust growth and stronger fiscal institutions, with adherence to the European Union fiscal framework, strengthened fiscal sustainability. In the three years leading up to the COVID-19 pandemic, despite strong revenue mobilization and output growth, Poland breached limits on government spending as set by the EU preventive arm, on account of new spending initiatives (including a new child benefit program in 2016), a reduction in the national pension age at the end of 2017, and additional pension benefits.

Activating the general escape clause of EU fiscal rules provided EU member states, including Poland, with the budgetary flexibility to deal with the COVID-19 crisis. Poland's national stabilizing expenditure rule was also suspended in 2020, while in 2021 a modified escape clause of the stabilizing expenditure rule provided scope for additional spending. The increased flexibility allowed Poland to accommodate an extraordinary budgetary response to the COVID-19 crisis over the 2020-21 period, including a large fiscal support package. The temporary departure from the adjustment path toward the medium-term objective of a structural deficit of 1 percent of GDP could create additional consolidation pressure when the general escape clause is deactivated. Nonetheless, the departure was necessary to cushion the impact of the crisis and strengthen the recovery, and it does not currently pose a threat to public finance sustainability in the medium term.

Fiscal consolidation is needed over the medium term, but should not undermine the economic recovery

The fiscal consolidation that is needed to stabilize debt is relatively modest and the policy mix should not threaten the economic recovery. The size of the adjustment needed in Poland is modest relative to other Central European economies and the euro area. Moreover, projections for both the primary balance and cyclically-adjusted primary balance suggest that the planned pace of fiscal adjustment is swift enough to quickly stabilize debt, albeit at higher levels relative to pre-pandemic trends. In its Convergence Program for 2021, the government of Poland expects a decline in primary spending over the 2021–24 period of close to 5 percentage points of GDP. Premature fiscal consolidation is a near-term risk.

There are several sources of public spending pressure over the medium term, including those that relate to environmental sustainability. Meeting the 2030 greenhouse gas emission (GHG) reduction target requires significant investments to transition to a lower-emission economy, particularly in the energy sector, but also transport, buildings, and agriculture. Large funding gaps remain, however. For Poland, lower emissions require, among others: diversifying its energy mix away from coal, while ensuring an inclusive and just transition; greening transportation to contain fast-rising transport emissions; and improving energy efficiency, including in the residential sector. For example, for the 2018-30 period, the investment gap for the energy transition in Poland for at least a 40 percent reduction in emissions was estimated at €20 billion out of a total €70 billion in generation and network investment needs (PKEE E&Y Business Advisory 2018). While Poland stands to receive allocations under the EU budget for Climate and Environment, it remains the case that EU ETS allocations, funds from the Modernization Fund, Just Transition Mechanism funds, and national co-financing funds will need to be sizeable. The EU Recovery and Resilience Facility can help to accelerate the transition toward climate neutrality, as at least 37 percent of expenditure is to be earmarked for climate investments and reforms. An accelerated transition to a low-carbon economy could pose risks, including fiscal risks. The State Treasury might buy coal-fired power units from utility companies, in order to allow power companies to access financing for investments in natural gas and renewable energy. Such stranded assets need to be carefully managed. Meanwhile, severance and early retirement conditions for coal miners will increase liabilities. Such a transition also risks diminished energy affordability (World Bank Poland SCD 2017).

Demographic changes in Poland over the medium- to long-term represent another source of spending pressure. The rollback in the retirement age could impact the adequacy of future pension benefits, increasing the incidence of minimum pension and potentially the associated fiscal costs. While gross public pension expenditure is projected to be broadly stable over the medium term, there are risks of increased spending pressure. The demographic component is projected to significantly impact gross public pension expenditure as the number of beneficiaries relative to that of potential contributors rises (3.7 percentage points of GDP increase over the 2019-30 period). The old age dependency ratio is projected to increase by nearly 10 percentage points by 2030 to 38.9 percent, as the post-war baby-boom generation continues to reach retirement age. This is estimated to be largely offset by the impact of reform-related factors² that positively impact pension expenditures (EC Joint Paper on Pensions 2019). Sharp declines in replacement rates on account of the notional defined contribution (NDC) system and its interactions with the expected rise in longevity could pose risks, however. Minimum pension guarantees and other social benefits for pensioners with pension benefits below the minimum pension could result in higher-than estimated old-age expenditures. Furthermore, an adverse macroeconomic structural shock could increase the gross public pension expenditure by 0.4 percentage points of GDP by 2030.³

Spending on health is expected to increase over the medium term, in part due to aging but also due to efforts to promote resilience in the health care system. The government has committed to increase public financing of health by more than 1 percentage point of GDP to 6.2 percent of GDP by 2024, and an integrated healthcare strategy is critical to ensure the highest efficiency of this additional spending. Legislated wage adjustments for health personnel and reforms to ensure overall improvement of accessibility of health care services are expected to have direct budgetary impacts (2019-23). Health care expenditure is expected to increase by 1.4 percentage points of GDP between 2019 and 2030 in the reference scenario. Long-term care costs are projected to rise by around 0.3 percentage points of GDP each by 2030 (EC 2021⁴).

Structural tax policy and tax administration reforms can help to mobilize additional resources

To achieve ambitious climate change commitments, a broader package promoting a green transition could be considered, while supporting workers and households in the industries and regions most affected by this transition. Decarbonization and climate policies can affect public finances significantly, while alignment with the new Energy Tax Directive under preparation will be critical. Environmental revenue represented 2.64 percent of GDP in 2019, of which 87.5 percent came from taxes on energy products, including excise duties on energy products, permit fees from the EU Emission Trading System (ETS), and a wide range of environmental concession and usage fees. The latter are levied primarily on energy and fuel production activities. Estimates of the effective tax rate on energy, however, are low relative to those in most other EU countries, as the Polish tax system does not perform well in pricing carbon emissions at efficient levels.

The government could consider these measures, among others:

- reversing its decision on the 2016 coal and gas excise exemptions, in which case revenue could be used to finance tax credits for energy efficiency and clean energy production
- introducing a carbon dioxide-related vehicle tax
- broadening the base and increasing the carbon tax to increase effectiveness of carbon-pricing signaling, while lowering social contributions of employers and/or increasing transfers to poorer households
- phasing out fossil fuel subsidies

Poland's tax system generates less revenue-to-GDP and direct taxes have a smaller share. Tax revenue, including mandatory Social Security Contributions (SSC), amounted to 35.2 percent of GDP in 2019 compared to an EU-27 average of 40.1 percent. Personal Income Tax (PIT) and Corporate Income Tax (CIT) statutory rates are relatively low, and there are several special treatments and exemptions applicable to certain subgroups of taxpayers.

Overall, the combined PIT and SSC system is one of the least progressive in Europe while imposing a relatively high tax wedge on low incomes. Due to various PIT special treatments, the top statutory PIT rate applies to less than 5 percent of PIT taxpayers. Furthermore, some special treatments and exemptions are likely to distort the choices of households and firms and raise some concerns in terms of equity. Additionally, part of the potential PIT tax base remains untaxed and represents an important untapped source of public funding. It also incentivizes the shift to atypical work arrangements to the detriment of regular labor contracts, raising concerns in terms of both horizontal and vertical equity.

The government could consider the following key policy recommendations to address the issues identified:

- increasing the progressivity of the general PIT and SSC schemes by introducing a higher basic PIT allowance and redesigning its phasing-out rate; and financing a reduction in SSCs for low-income earners via an increase in SSCs on high-income salaried earners and the self-employed
- harmonizing social security and health contribution treatments for standard labor contracts, atypical contracts, and self-employment, accompanied by the introduction of an SSC allowance on low incomes
- redesigning health contributions to be proportional to the PIT tax liability, increasing progressivity and equity
- removing the optional joint taxation regime, as positive tax jointness raises concerns in terms of both its efficiency and equity
- taxing the income earned by self-employed workers and capital income under the general progres-

sive PIT scheme, in lieu of the 19 percent flat rate and lump-sum options; a fixed dividend tax credit could compensate for the effects of the double taxation on the profits of incorporated businesses.

 introducing targeted measures to reduce a relatively high labor informality to broaden the PIT tax base

Tax policy measures aimed at increasing the progressivity of the tax system are currently under discussion, but reform design should be budget neutral in light of the mounting pressures on public finances described in detail above. The government of Poland is currently discussing a set of reform proposals (the Polish Deal), including tax policy changes: (1) large increase in the tax allowance; (2) increase in the first PIT rate threshold; and (3) large reduction in deductible health insurance contribution (HIC) from PIT tax and from changing the rules of health insurance contribution's calculation for self-employed. The first two would benefit all taxpayers, with the largest relative impact on low earners, while the changes related to the HIC would increase effective PIT rates.

Special tax treatments and exemptions distort taxpayers' choices and may affect horizontal and vertical equity. Besides the foregone revenue, some of these preferential treatments raise efficiency and equity concerns. Special tax treatments and optional schemes are applicable to PIT, CIT, and a list of items is subject to reduced VAT rates and VAT exemptions. The current CIT system is designed to provide fiscal support to small firms but features limited incentives to support firms' growth. While the preferential CIT treatment of small firms supports businesses, it can distort firms' growth decisions and limit their potential to create jobs. The VAT exemption on financial services can generate important distortions in the relative prices of financial inputs and services, but there are practical difficulties in measuring the value added of financial services.

To reduce distortions in the tax system and increase horizontal and vertical equity, the government could consider the following:

- systematically evaluating tax expenditures to improve effectiveness of tax policy
- refocusing the system of tax incentives, including for CIT, in favor of greater direct support to investments to sustain firms' growth and job creation

Tax administration reforms helped to improve compliance

Poland has made important advances in increasing VAT compliance in recent years, with a positive impact on CIT compliance as well. Since 2016, the government has adopted a series of measures to combat VAT evasion, increase VAT revenues, and reduce unfair competition from fraudulent business practices. In 2016, the government reduced the threshold for cash transactions between firms. In 2018, it introduced penalties for VAT underestimation together with an optional Split Payment Mechanism (SPM) on business-to-business transactions. The latter measures became mandatory in November 2019 in sectors that were considered particularly prone to VAT evasion. Furthermore, an Online Cash Registry System was introduced in 2019, and a "white list" containing information on registered VAT taxpayers was introduced.

On the tax administration side, the government could continue its efforts to fight tax evasion, including by the following means:

- contrasting wealth and profits offshoring through enhanced cooperation at the EU level
- limiting tax competition within the EU and reinforcing cross-border information-sharing initiatives
- introducing PFIC rules to tax capital income from offshore funds on a current basis, as well as requiring residents to report the value of their foreign portfolio of assets to limit tax avoidance of taxation on capital income from foreign assets, should also be considered by the authorities.

Public spending savings potential is limited given important spending needs and budget rigidities

A relatively high share of rigid expenditures affects the composition of fiscal consolidations. Budget rigidities have increased over the past decade by almost 2 percentage points to 75 percent of spending.

Flagship family support government programs, supplementary pensions, and demography-related changes carry a substantial fiscal cost. The Family 500+ program, introduced in 2016, reached a cost of 1.8 percent of GDP in 2020. This program is in addition to other components of the family support programs and benefits. These programs significantly reduce the extreme poverty rate among households with children. Except for family allowance with supplements, other family support programs are characterized by limited progressivity. Furthermore, supplementary annual pensions cost of the first 2 years program of 13th pension was Zl 22.5 billion (MFLSP information), or 0.4 percent of GDP annually. A proposed 14th pension expected to start by end-2021 could cost an additional 0.37 percent of GDP. The design of the old-age pension system based on a notional defined contribution theoretically ensures long-term stabilization of pension expenditure in relation to GDP, but it is likely come at the cost of a dramatic drop in the replacement rate. The cumulative effect of demography-related changes is expected to increase government spending by about 2 percentage points of GDP by 2030.

Renewed emphasis on increasing the efficiency, targeting and equity impact of public spending would support fiscal consolidation without endangering the recovery. With regard to that the government could consider the following:

- increasing the efficiency of the pro-family policy instruments
- increasing the retirement age and the gradual alignment of the male and female statutory retirement ages

- introducing longevity adjustment of retirement age
- protecting growth-enhancing expenditures during fiscal consolidation
- implementing an integrated health care strategy, allocating resources to primary care, prevention, and e-health services
- capping the mandatory seniority premium
- limiting automatic raises in salary with tenure

Public procurement is a powerful tool to achieve the economic, social development, and environmental goals and its efficiency is critical to achieving these goals. While green public procurement (GPP) may have started out as an "alternative" procurement approach, it is now recognized as an essential element of modern procurement systems. A strategic procurement analysis unveiled opportunities to save an estimated 4.9 percent of annual public procurement spending through measures that do not require new laws or modifications to existing laws and regulations. Rather, the measures reflect a combination of policies and strategies that could generate savings in public procurement.

For an effective green procurement strategy, the government could consider incorporating good practices along the six pillars included in World Bank's Green Public Procurement Pillars and Good Practices Framework. The GPP pillars and good practices framework proposed by the World Bank is built around six pillars that allow for a customized, non-linear yet balanced approach: 1) building the business case; 2) enabling the framework; 3) market engagement; 4) professionalization; 5) implementation tools; and 6) monitoring tools.

Furthermore, the government could consider the following measures to achieve savings:

 increasing competition to help drive down relative prices paid in public procurement, both in the form of the procedure used and bidder turnout

- buying a few items in bulk, which is the most promising strategy to save money in procurement, especially for high-volume, low-complexity items
- introducing measures to ensure fewer monopolies and oligopolies at the market and buyer level
- increasing the success rate of procurement processes
- improving the efficiency of bid evaluation and contract award

EU funds can help relieve budget pressures, and can be used strategically to strengthen resilience while advancing green priorities

Poland is expected to receive €170.7 billion from the EU over the 2021-2027 period, representing 3.7 percent of the projected GDP, most in form of grants. The three main programs under which EU funds are expected to be made available are the multi-annual financial framework (MFF) 2021-27 of the Cohesion Policy (CP) (€75 billion), the Recovery and Resilience Facility (RRF) (Poland could access up to €58.1 billion, of which €23.9 billion in grants), and the Agricultural Policy (AP) (€32.2 billion). The EU funds can be used to finance government policies and investments. The RRF will finance the reforms and investment programs included in the National Recovery and Resilience Plan (NRRP). This extraordinary one-off financing provides an opportunity to carry out significant reforms and investment programs without putting pressure on government finances since EU funds are budget neutral. The RRF is designed to frontload disbursements to facilitate the economic recovery from the COVID-19 crisis.

Poland's National Recovery and Resilience Plan (NRRP), the basis for receiving RRF funds, is comprised of both structural reforms and investment plans. It is comprised of five components: 1) resilience and competitiveness of the economy; 2) green energy and reducing energy consumption; 2) digital transition; 4) efficiency, availability and quality of health care; and 5) green, intelligent mobility. The plan's main objectives are to restore the development potential of the economy lost because of the COVID-19 pandemic; to support the building of sustainable competitiveness of the economy; and to increase the standards of living in the long-term.

The NRRP components seek to address identified development challenges that relate to the six pillars of the EU RRF instrument. These challenges include productivity and the ability to create high-quality jobs in the conditions of a transforming economy; unfavorable demographic trends and the supply of labor resources; investment climate and level of private investments; independence from coal and transforming key sectors of the economy to a low-emission model; digital transformation of the economy; insufficient quality and limited access to health services as well as the ability of the health care system to quickly respond to epidemic threats; the condition of infrastructure, structure and safety of transport serving a competitive, green economy and intelligent mobility; concentration of development and climate issues, loss of growth potential and low resistance to crisis phenomena in the spatial dimension; and ensuring sustainable public finances. To implement the NRRP by August 2026, Poland plans to spend the entire amount of available grants (€23,858 billion) and apply for €12.12 billion in preferential loans to be allocated primarily to projects related to the climate transformation and digitization.

Strengthening fiscal transparency and continued modernization of Public Financial Management is critical for implementing the country's recov-

ery plan after the crisis. The budget system reforms for a modern program budgeting system (including ICT solutions) and increased fiscal transparency are needed to: ensure the long-term stability of the public finance system; increase the efficiency and transparency of public assets/spending; and manage current and anticipated fiscal pressures due to population aging, social spending, and the green and digital agenda.

The government could consider the following measures, among others:

- further aligning Polish public sector Generally Accepted Accounting Principles (GAAP) with International Public Sector Accounting Standards (IPSAS)
- simplifying and standardizing Polish public sector accounting regulations across all public sector entities
- developing aggregated financial information to gain a better understanding of the government's overall financial position and fiscal risks than that reported by the current consolidated cash-based budget execution
- supplementing the current cash-based budget execution reports with accruals-based information, including assets and liabilities
- revising to broaden the coverage and definition of public sector entities
- introducing an independent fiscal council

Recommendations	Timing	Expected fiscal impact	Expected output impact	Expected social impact	Expected environmental impact		
Supporting Fiscal Sustainability							
Increase retirement age, gradually; align male and female statutory retirement ages; and ultimately introduce longevity ad- justment of retirement age.	MT	÷	+	Uncertain (bet- ter econom- ic situation in retirement, but other as- pects are also important, e.g., people preferences)	Neutral		

Table ES.1 Policy Recommendations Summary

Recommendations	Timing	Expected fiscal impact	Expected output impact	Expected social impact	Expected environmental impact
The establishment and institutionaliza- tion of an independent fiscal council could help to achieve greater transparency and accountability.	MT	+	+	+	Neutral
Enact structural fiscal reforms to support the green transition and environmental sustain- ability, including removing coal and gas ex- cise exemptions, with revenues generated used to finance tax credits for energy efficien- cy and clean energy production; introducing a CO ₂ -related vehicle tax; broaden the base and increase the carbon tax to increase effec- tiveness of carbon pricing signaling, while low- ering social contributions of employers and/ or increasing transfers to poorer households; phase out fossil fuel subsidies.	MT	Uncertain. Depends on the package of measures adopted	Uncertain. Depends on the package of measures adopted	Uncertain. Depends on the pack- age of meas- ures adopted. Could be neg- ative without compensating measures	÷
Further strengthen the public expenditure review processes, especially through imple- menting effective follow-up mechanisms.	MT	+	Neutral	+	Neutral
Tax Policy and Efficiency					
Increase the basic PIT allowance.	ST/MT	-	+	+	Neutral
Increase progressivity in SSC contributions.	ST/MT	Either nega- tive or neutral depending on the package of measures adopted	+	+	Neutral
Harmonize SSC and health contributions.	ST/MT	Positive or neutral de- pending on the package of measures adopted	Uncertain. Depends on the package of measures adopted	Uncertain. Depends on the pack- age of meas- ures. Risk of negative ef- fects without compensat- ing measures adopted	Neutral
Single PIT system for labor income,	ST	+	-	+	Neutral
income.	MT	Uncertain	Uncertain	+	Neutral
Remove joint PIT scheme.	ST/MT	+	+	+	Neutral
Capital income from foreign sources	ST/MT	+	Uncertain	+	Neutral
Shift from size-based CIT preferences to di- rect tax support to investment.	ST/MT	Depends on the package of measures adopted	+	Uncertain	Positive if in- vestments are mostly green
Replace the "Estonian CIT" with direct tax	ST	+	+	Neutral	Neutral
Support to investment.	MT	Neutral or positive	+	Neutral	Neutral

Recommendations	Timing	Expected fiscal impact	Expected output impact	Expected social impact	Expected environmental impact
Remove coal and gas excise exemptions.	ST	÷	-	Depends on the pack- age of meas- ures adopt- ed. Negative without com- pensating measures.	÷
	MT	+	Uncertain	Uncertain	+
Reform local tax sharing to reduce the vol- atility of local budgets.	ST/MT	Neutral	Neutral	Uncertain	Neutral
Increase local revenue autonomy	ST/MT	+	Uncertain	Uncertain	Neutral
Conduct comprehensive reviews to in- crease the efficiency of the pro-fami- ly policy instruments and free funds for growth-enhancing projects.	ST	+	+	Neutral	Neutral or nega- tive (higher growth under brown econo- my model)
	MT	+	+	Neutral	Neutral or positive (fast- er transi- tion to green economy)
Suspend the 14th pension and redirect the resources released to targeted aid for those most at risk of poverty and exclusion (in-depth review of the poverty/inclusion situation of the single-person households).	ST	Neutral	Neutral	+	Neutral
Maximize the return on spending in edu- cation through optimal allocation of pub- lic resources to skills formation at different stages of the life cycle. Focus on pre- school and adult education as well as on- the-job training.	ST	Neutral	Neutral	+	Neutral
	MT	+	+	+	Neutral
Adopt an integrated healthcare strategy to address pandemic-related and structur- al issues and to allocate additional pub- lic health spending. The strategy could give more prominence to primary care, preven- tion, and e-health services	ST	-	Neutral	Depends on the package of measures adopted	Neutral
	MT	Neutral or positive (if the expenses translate into better health)	Neutral or positive (if the ex- penditure translates into great- er economic activity)	Depends on the package of measures adopted	Neutral
Adjust the remuneration system in pub- lic administration to make it attractive to young, well-educated people.	ST	Neutral or positive	Neutral or positive	Neutral	Neutral



Recommendations	Timing	Expected fiscal impact	Expected output impact	Expected social impact	Expected environmental impact	
Leverage digitalization to optimize employ- ment in administration and public services. Consider limiting automatic salary increas- es with tenure.	MT	+	+	Neutral	Neutral	
Use the National Recovery and Resilience Plan to ensure consistency of various de- velopment programs and to increase growth-enhancing expenditure in the short-term.	ST	Neutral	+	Neutral	Negative (higher growth under brown econo- my model)	
	MT	+	+	Neutral or positive	Positive (fast- er transi- tion to green economy)	
Conduct an independent public investment	ST	+	Neutral	+	Neutral	
inefficiency sources.	MT	+	+	+	Neutral	
Greening Public Procurement						
Build the business case for GPP by launch- ing GPP communication campaigns, iden- tify and support GPP champions; identify entry points for implementation; mobilize financial resources	MT	Uncertain	Uncertain	Uncertain	+	
Strengthen the GPP-enabling framework by building a sound institutional framework; well-identified policy space; a clear legal basis. Prioritize and develop an implemen- tation plan.	MT	Uncertain	Uncertain	Uncertain	+	
Green innovation market engagement as- sessing market readiness; provide notic- es to the market with sufficient lead time; engage in market consultations to design realistic tenders; build supplier capacity; promote SME participation; and conduct innovation procurements.	МТ	Uncertain	Uncertain	Uncertain	+	
Build professional competencies for GPP assessing the gaps in these competen- cies; assess training needs; ensure buy- in from procurers for green procurement; develop manuals and toolkits for GPP, pi- lot for green tenders, and foster peer learn- ing and networking to ensure profession- alization. Driving organizational change is also critical.	MT	÷	Uncertain	Uncertain	+	
Build GPP implementation and monitor- ing tools.	MT	+	Uncertain	Uncertain	+	
Promoting Strategic Public Procurement						
Move contracts in any non-open procedure to fully competitive procedures.	ST	ZI 12.27 bn	+	Not measured	Not measured	

Recommendations	Timing	Expected fiscal impact	Expected output impact	Expected social impact	Expected environmental impact		
Reduce the use of framework agreements or improve their scope and design.	ST	Zl 8.06 bn	+	Not measured	Not measured		
Move paper-based contracts to electron- ic auctions.	ST	ZI 4.41 bn	+	Not measured	Not measured		
Increase advertisement periods: Eliminate short advertisements (1-39 days) by increasing them to more than 40 days.	ST	ZI 7.25 bn	+	Not measured	Not measured		
Smooth spending throughout the last quar- ter of the budget year by reallocating some of contracts to a nearby cheaper month.	ST	Zl 5.4 bn	+	Not measured	Not measured		
Move tenders bundling heterogeneous products to less diverse tenders (bunding two products only).	ST	ZI 0.15 bn	+	Not measured	Not measured		
Shorten decision periods by use of elec- tronic or simplified processes and by in- creasing capacity	ST	ZI 6.67 bn	+	Not measured	Not measured		
Move contracts from the lower half success rate organizations (less than 99 percent) to highest success rate organizations (100 percent).	ST	ZI 2.51 bn	+	Not measured	Not measured		
Move 0-2 bidder contracts to 3 bidder contracts	ST	ZI 67.9 bn	+	Not measured	Not measured		
Move contracts from high-spending con- centration buyers (2.97-100 percent) to lower-spending concentration buyers (1.7- 2.9 percent)	ST	ZI 13.19 bn	+	Not measured	Not measured		
Move contracts in high-concentration mar- kets (0.26-100 percent) to lower-concen- tration markets (0.11-0.259 percent)	ST	ZI 0.44 bn	+	Not measured	Not measured		
Increase market share of local suppliers (i.e., same state).	ST	ZI 0.32 bn	+	Not measured	Not measured		
Increase share of SME participants.	ST	ZI 0.65 bn	+	Not measured	Not measured		
Move contracts supplied by highly-special- ized suppliers (operating on 1 market) to less-specialized suppliers (operating on 2 markets.	ST	ZI 3.3 bn	+	Not measured	Not measured		
Enhancing Public Financial Management and Fiscal Transparency							
Prepare and publish a comprehensive road map and implementation plan for sequenc- ing the interconnected SBR and PSAR in- cluding further alignment with IPSAS and preparation of consolidated financial statements.	ST	Neutral	+	Neutral	Neutral		

Recommendations	Timing	Expected fiscal impact	Expected output impact	Expected social impact	Expected environmental impact		
Supplement budget execution reports on a cash basis with additional information on an accrual basis, including on assets and liabilities.	ST	+	+	Neutral	Neutral		
Complete the development and introduc- tion of the SCoA and the integration of fis- cal and financial reporting across the PFM cycle.	ST/MT	+	+	Neutral	Neutral		
Carry out an assessment of ICT capabil- ities and requirements to prepare medi- um-term strategy, including ICT solutions, to enable collection and consolidation of financial information and other PFM pro- cesses at the central and decentralized level.	ST/MT	-	+	Neutral	Neutral		
Establish a permanent and comprehensive training program for government staff with PFM related functions.	ST/MT	-	+	Neutral	Neutral		
Establish a baseline and gap analysis of existing PFM practices and carry out peri- odic evaluations of progress.	ST/MT	Neutral	+	Neutral	Neutral		
Actions to strengthen budget and fiscal transparency practices							
Improve budget transparency – (online mid-year budget implementation and Citizens Budget, a more detailed mac- ro-economic forecast).	ST	Neutral	+	Neutral	Neutral		
Improve public participation in the budget process	ST	Neutral	+	Neutral	Neutral		
Make budget oversight more effective (at the budget proposal, in-year reporting stage)	ST	Neutral	+	Neutral	Neutral		

Note: ST: short term, MT: medium term

Notes

- World Bank. 2017. Poland Systematic Country Diagnostic: Toward a Strategic, Effective, and Accountable State (English). Washington, D.C.: World Bank Group.
- 2. In the case of Poland, reduction in the benefit ratio, coverage ratio, and labor market are estimated to reduce gross public pension expenditure-to-GDP. The coverage ratio will contribute to a 1.5 percentage point of GDP decline over the 2019–2030 period, while the benefit ratio will contribute 1.4 percentage points over the same

period. Minimum pension expenditure is expected to rise by 2.3 percent of GDP by 2070.

- 3. The 2021 Ageing Report (EC 2021) defines the adverse structural scenario as a stronger cyclical downturn in the lagged recovery scenario and that the growth potential will be lower over the next decade and potential output growth will thus be permanently lower than under the baseline scenario.
- 4. The 2021 Ageing Report. European Commission, 2021

CHAPTER 1

FISCAL ASSESSMENT



FISCAL TRENDS

Prudent macroeconomic policies and effective absorption of EU investment funds contributed to inclusive growth and poverty reduction. Poland recorded almost 30 years of uninterrupted growth until 2020 and has been one of the fastest-growing economies in Europe. The economy expanded at a sustained pace, averaging 3.6 percent over the 2010-19 period, despite the euro debt crisis. Poland continued its income convergence, reaching more than 70 percent of the average EU GDP per capita by 2015.¹ This strong growth performance and convergence was supported by Poland's record of prudent macroeconomic and fiscal policies, anchored by inflation targeting, a flexible exchange rate, and a sound fiscal framework supported robust and resilient growth. A sound financial sector and better access to long-term credit have also supported sustained growth. The global COVID-19 crisis has affected Poland as well, triggering the first output contraction in 30 years, affecting lives, livelihoods, economic activity, and public finances markedly.

Poland has built fiscal buffers for most of the decade prior to the COVID-19 crisis

Poland built fiscal buffers in the years preceding the COVID-19 pandemic, aided by robust growth, expenditure consolidation, and efforts to increase tax collections. Poland started rebuilding fiscal buffers in the wake of the 2007-08 Global Financial Crisis (GFC), after its deficit shot up to 7.3 percent of GDP on average over the 2009–10 period. Poland was the only EU member that did not experience a recession.² The Council of the European Union triggered the Excessive Deficit Procedure (EDP) in 2009 for Poland, recommending that Poland bring its general government deficit below 3 percent of GDP by 2012, which was subsequently extended to mid-2015. In June 2015 the EU Council closed EDP based on the 2014 deficit figure corrected for the pension reform cost. A temporary expenditure rule was proposed to lower the structural deficit and stabilize it to a level consistent with meeting the Medium-Term Objectives (MTO) of a deficit of 1 percent of GDP, while the VAT rates were increased starting in 2011. Social contributions were hiked by 2 percentage points starting in 2012 (Box 1.1). Notably, the implementation of a stabilizing expenditure rule³ in planning the 2014 budget expenditures — which became binding starting in 2015 — has further contributed to the consolidation, and expenditures above the limit set by the rule had to be matched with new revenue measures. The government managed a sizeable fiscal consolidation, and the deficit declined from more than 7.3 percent of GDP in 2009–2010 to 2.6 percent of GDP by 2015, and further to a historical low deficit of 0.2 percent of GDP by 2018, with a slight uptick in 2019 to a deficit of 0.7 percent of GDP.

Strong cyclical factors, in conjunction with efforts to improve tax compliance and combat tax fraud and abuse since 2016, helped support revenues. The efforts to improve tax compliance include the introduction in 2016 of the Standard Audit File-Tax (SAF).⁴ This improved electronic data reporting and data processing, starting with large enterprises, and was rolled out gradually to the other enterprises. Furthermore, the modification of the rules for accounting VAT on intra-Community purchases of motor fuels (so-called fuel packages) came into force in August 2016, including amendments to the VAT for intra-EU purchases, and excise and concession provisions for trading in liquid fuels. The energy package introduced in September of the same year further supported revenues from VAT, excises on motor fuels and fuel fee revenues, by closing loopholes to expand the legal fuel market. Similar efforts in tax compliance resulted in increased excise duties on tobacco products. Furthermore, the General Anti-Avoidance Rule (GARR) became effective in mid-2016, and in March 2017 the National Revenue Administration was founded, by merging the tax administration, fiscal control, and Customs service. These measures, together with strong economic growth supported an increase in general government revenues of 1.2 percentage points of GDP over the 2016-17 period. Of this figure, it is estimated that the compliance effect represented close to 0.9 percentage points of GDP (Figure 1.1).⁵

Improved tax administration in conjunction with strong growth resulted in higher tax revenues. General government tax revenues increased by 2.7 percentage points between 2015 and 2019 to the highest level since 1999. Higher direct and indirect taxes contributed to this increase. Higher wages and employment supported personal income tax revenues, which contributed 0.7 percentage points of GDP, or



Figure 1.1 General government revenues

Figure 1.2 General government tax revenues



Box 1.1 Poland's fiscal consolidation in the wake of the Global Financial Crisis 2010 – 15

Poland achieved fiscal consolidation in the wake of the 2007 – 08 Global Financial Crisis through a policy mix of spending and revenue measures aiming to lower the deficit to levels consistent with the MTOs. The pace of consolidation slowed in 2013. Poland remained under the excessive deficit procedure from 2009 until mid-2015.

On the expenditure side, containment measures helped reduce expenditure by 3.3 percentage points of GDP and included the following:

- Gradually raising the retirement age for both women and men and equalizing it at 67 starting in 2013, as well as increasing retirement age for uniformed services;
- Introducing a disciplinary expenditure rule to limit the increase in discretionary expenditures and new fixed expenditures to 1 percent annually in real terms starting in 2011 (replaced by the expenditure stabilizing rule effective at the end of 2013);
- Taking debt-servicing reduction measures, through the transfer of assets from open insurance funds to the Social Insurance Institution and consolidation of liquidity management of public finance sector units;
- Freezing the remuneration fund in the state budget units at the level of the previous year, starting in 2011;
- Banning the adoption of legal acts provisions by the Council of Ministers that result in a rise in expenditures or a decline in revenues in the public finance sector units when Poland is under the excessive deficit procedure;
- Adjusting the fiscal provisions for the local government units (balanced current accounts and individual debt limits);
- · Cutting early retirement benefits;
- Introducing an income criterion for the one-off childbirth allowance, and;
- Reducing sickness benefits for uniformed services, judges, and prosecutors, to be covered by the general scheme (as of 2014).

On the revenue side, several structural revenue measures were introduced, albeit with a limited impact on tax-to-GDP ratio of less than 0.7 percentage point. The tax thresholds and the lump sum of deductible costs for PIT were frozen at the 2009 level, and changes were also made to the child relief schemes in early 2013. The government introduced in 2011 a temporary increase in the three VAT rates to 23 percent, 8 percent, and 5 percent until 2013 (which then became permanent), while broadening the base for the lowest VAT rate to several basic food products. The government has since 2011 reduced rights to deduct VAT on purchases of personal vehicles. In 2014, the government limited access to partial VAT refunds on purchases for housing purposes. The catalog of goods to which the reverse charge mechanism applies was extended in 2013, and the VAT rate on non-universal postal services was increased to 23 percent in April 2013. The limit below which taxpayers are authorized to keep a cash register was cut by 50 percent to ZI20,000 in 2013. The excise duty for cigarettes has been increased annually since 2010, while the excise tax on oil and fuel fees was hiked in 2012. The excise duty relief for biocomponents was removed in mid-2011, and a fee on the use of selected natural resources was introduced in April 2012. Since November 2013, the government applied the excise tax on natural gas used for heating purposes, excluding households. In 2013, it introduced the system of CO₂ emission allowances, and in 2014 it increased excise duties on ethyl alcohol. The internet discount was eliminated gradually, and the 50 percent of tax-deductible costs due to copyrights and related rights was reduced in January 2013. The share of pension contributions transferred to the Open Pension Fund (OFE) was lowered by 5 percentage points to 2.3 percent of the base as of May 2011, and the disability contribution was increased by 2 percentage points in February 2012. In 2014, taxation of limited joint-stock partnership was introduced.

Source: based on information from Convergence Program Updates 2014 – 2015, and the Multi-Annual State Financial Plans.

almost 25 percent to the increase in tax revenues over this period. Meanwhile, the increase in corporate income tax revenues was a more modest 0.4 percentage points of GDP, even though there was a significant increase in nominal terms over the 2016-2018 period following the introduction of GAAR (Figure 1.3). Measures to improve tax compliance and to fight aggressive tax planning have also had a positive impact on CIT and PIT revenues. For example, it is estimated that the compliance effect for CIT averaged 0.2 percent of GDP over the 2017-18 period.⁶ The effect of the introduction of the flat PIT for small businesses in terms of the Standard Audit File for Tax (Jednolity Plik Kontrolny, or JPK) is estimated at 0.1 percent of GDP. A strong labor market also boosted social security contributions, which increased by 0.8 percentage points, accounting for nearly 30 percent of the increase in tax revenue. Measures implemented by ZUS (Social Security Institution), such as the introduction of the so-called e-Contribution (e-Składka), electronic sick leave, and the increase in the effectiveness of enforcement of receivables also supported social insurance contributions.

Figure 1.3 Contributions to tax-to-GDP ratio change by tax type



Policy changes for indirect taxes and measures to improve VAT compliance combined with robust consumption boosted indirect tax revenues. VAT collections contributed nearly 1 percentage point of GDP to higher tax revenues over the 2015–19 period, accounting for more than a third of the overall increase. Higher VAT revenues were supportedby higher consumption, higher VAT rates, improved tax compliance through measures aimed at sealing the VAT, including the split payment mechanism (SPM), and the so-called fuel and energy packages, which boosted indirect tax revenues. VAT revenues grew faster than consumption (Figure 1.4). The estimated compliance effect for VAT is around 0.3 percent of GDP on average for the 2017–19 period.⁷

Figure 1.4 VAT revenues and final consumption



Sources: World Bank; OECD.

Spending containment efforts contributed to the fiscal consolidation in the wake of the GFC and the euro area debt crisis, with investment bearing the brunt. Spending by the general government declined by 2.7 percentage points of GDP to an average of 41.5 percent of GDP for the 2015-19 period, relative to the 2000-14 period (Box 1.1). After a marked increase in the spending-to-GDP ratio in the pre-accession years and in the wake of the GFC and the euro area debt crisis (when general government spending grew on average by 8.5 percent per year), spending growth slowed markedly as the government started fiscal consolidation, averaging 2.1 percent annually over the 2012-15 period. A large part of the adjustment was done through investment, which fell close to 30 percent in nominal terms between 2011 and 2013, in part because of budget rigidities. The share of capital expenditure declined by 1.3 percentage points

of GDP between 2010 and 2015, while the share of compensation of employees declined by 0.7 percentage points of GDP over this period. This is due to the slowdown in the growth in compensation as a result of freezing the wage bill for most central government institutions.

The strengthening of the fiscal framework through the introduction of the stabilizing expenditure rule limited growth of public expenditure in the subsequent years. The rule, introduced in 2013 and applied for the first time to the 2015 budget law, also accounts for the estimated effect of discretionary tax and SSC revenue measures when setting the expenditure limit. The subsequent consolidation was concentrated on administration costs and on social expenditure.

Transition between EU MFF affects absorption of EU structural funds and public investment.

In 2016 public investment slumped significantly by 1.2 percentage points of GDP to 3.3 percent of GDP, but recovered in 2017. The decline in 2016 was brought about partly by terminating the use of the funds from the EU's Financial Perspective for 2007-13, and partly by the transition to the EU's 2014-20 MFF, both of which affected the absorption of EU structural funds. In particular, the very low use of the EU funds by local governments contributed to a 0.8 percentage point decline in the public investment-to-GDP ratio. The same year, central government investment declined on account of lower infrastructure expenditures incurred by the PKP PLK S.A. (the Polish railway infrastructure managing company), which were partly offset by the growth in infrastructural expenditures incurred by the National Road Fund under the National Road Construction Program for 2014-23. In 2017 general government investment rose 0.4 percentage points of GDP to 3.9 percent of GDP, as local government investments surged on the increased use of funds from the EU's Financial Perspective for the years 2014-20. Increased investment in railway infrastructure by the Polish Railway Lines (Polskie Linie Kolejowe, or PLK) contributed to the increase in the central government investment.

Since 2016 the consolidation was slower than previously envisaged as new social programs were introduced, although progress on consolidation continued on the revenue side. Social expenditures rose faster than GDP on account of the social policies introduced by the government. The government's key social policies introduced by the government included the child benefit (Family 500+ program), in force since April 2016, as well as lowering again the statutory retirement age since October 2017 to 60 years for women and 65 years for men, which carried additional costs estimated at 0.5-0.6 percent of GDP. The child benefit was introduced in 2016, with the full yearly cost effect felt in 2017. This contributed to an increase in social benefits between 2015 and 2019 of 1 percentage point of GDP (Figure 1.5). Furthermore, the Family 500+ contributed to the 1 percentage point of GDP increase in current transfers received by households and non-profit institutions serving households (NPISH) in 2016 (to 17.4 percent of GDP).



Figure 1.5 Changes in general government expenditure

Sources: World Bank calculations; Eurostat.

High budget rigidity affects the quality and composition of fiscal consolidation. The share of rigid expenditures has increased over the past decade by almost 2 percentage points, to 75 percent of spending. Highly rigid spending (compensation of employees, social transfers, and interest payments) accounts for 69 percent of total spending, while an additional 6 percent of total spending has a moderate degree of





Sources: World Bank calculations; Eurostat.

rigidity, including economic subsidies and other transfers. Declining interest rates helped reduce the cost of servicing the public debt, creating additional fiscal space. Interest payments declined by 0.7 percentage points of GDP between 2010 and 2015 (Figure 1.5), as debt burden declined. Interest expense also declined following the 2014 debt reduction, the one-off transfer and subsequent redemption of government debt securities (of close to 9 percent of GDP) from Open Pension Funds to ZUS. By 2019, the cost of servicing the general government debt dropped to 1.4 percent of GDP, compared with 2.7 percent of GDP in 2012.

Cyclical factors and improved tax administration contributed to primary surpluses over the 2017-19 period. Strong economic growth and a strong labor market boosted tax revenues and social security contributions. This, coupled with improvements in tax compliance, resulted in primary surpluses averaging 0.7 percent of GDP over the 2017-2019 period. The corollary was a marked decline in general government debt of almost 9 percentage points, from 54.6 percent of GDP in 2016, to 45.7 percent of GDP by 2019. General government debt held by non-residents fell below 20 percent of GDP by 2019.

Strong fundamentals and favorable global interest rates have contributed to a declining effective interest rate. The decline has been more pronounced since early 2020. The NBP has engaged in open market operations, and its holdings of government and government-guaranteed securities increased to 8 percent of general government debt by 2020. Low and declining financing costs had contributed to the increase in the fiscal space and prior to the crisis there were no concerns with fiscal sustainability, with both medium- and long-term risks assessed as low.⁸

The COVID-19 pandemic has affected lives, livelihoods, economic activity, and public finances markedly

The global COVID-19 pandemic caused the largest global recession since World War II, also affecting Poland. Poland suffered its first output contraction since 1991, with lives and livelihoods lost. Economic activity in Europe and Central Asia (ECA) is estimated to have contracted 2.1 percent in 2020 in the wake of disruptions related to the COVID-19 pandemic. The pandemic is expected to erase at least five years of per capita income gains in about a fifth of the region's economies and increase the poverty headcount. Economies with strong trade or financial links to the euro area and those heavily dependent on services and tourism have been hit the hardest in the region. Even though the well-diversified Polish economy was one of the economies least affected by the COVID-19 pandemic in the Europe and Central Asia region, its GDP declined by 2.7 percent in 2020 (Figure 1.7), causing job losses (ILO 2021; World Bank 2021a).

Figure 1.7 Poland GDP growth



Source: GUS. Note: Orange line denotes the COVID-19 crisis.

Pandemic-related restrictions, heightened uncertainty, and negative confidence effects dampened Poland's household consumption and investment. Household consumption contracted by 3.0 percent while investment dropped sharply by 8.4 percent year-on-year in 2020 (Figure 1.8). Government spending to reduce pandemic impacts contributed to the 3.2 percent increase in public consumption, while public investment remained stable. Disruptions to international trade and transport and lower demand from some key EU partners caused a mild 0.5 decline in exports. Lower domestic expenditure resulted in a 2.6 percent decline in imports. As a result, net exports contributed 1 percentage point to growth in 2020.

Figure 1.8 Poland GDP growth composition



Source: GUS.

Subsequent waves of the COVID-19 pandemic and restrictions imposed to contain them have affected the pace of economic recovery and may continue to do so. As the pandemic intensified and strained the health sector, Poland and other nations imposed far-reaching restrictions on mobility and economic activity. These restrictions affected both demand and supply, with global value chains coming under pressure. As a result, Poland's GDP plunged 9 percent quarter-on-quarter in Q2 of 2020, before rebounding 7.5 percent in Q3.⁹ Poland's sizeable and swift policy response, both monetary and fiscal, and an easing in restrictions in Q3 contributed to the recovery in economic sentiment and output.

A second wave of the pandemic and targeted restrictions affected output in Q4 2020. Partial adaptation by some economic agents to operating under restrictions, a narrower scope of the restrictions imposed, more resilient economic sentiment among both consumers and businesses, and recovering external demand limited the output decline to 0.7 percent quarter-on-quarter (Figure 1.9). Even though the infection rates increased markedly during the second wave of COVID-19, private consumption spending declined at a slower pace than during the first wave. This was in part due to narrower restrictions, but also due to pent-up demand that was partly supported by higher wage growth. Investment activity, on the other hand, continued to suffer on account of pandemic restrictions, depressed business sentiment, a high degree of uncertainty regarding the duration and intensity of the pandemic, low capacity utilization, and expectations of lower level of economic activity.

Figure 1.9 Quarterly GDP path



Sources: GUS; World Bank.

Due to a resurgence of COVID-19 infections and the current pace of vaccinations, the economic recovery is projected to be above potential in **2021.** The outlook remains uncertain, however, and growth could be weaker than envisioned if the pandemic takes longer than expected to fade, if external financing conditions tighten further, or if geopolitical tensions escalate again. Even though output rebounded and is expected to reach 2019 levels by end-2021, a significant output loss compared with a non-pandemic counterfactual remains, with output by 2023 still 8 percent lower than in a non-pandemic counterfactual (Figure 1.10).

Figure 1.10 Lost output relative to pre-COVID 5-year trend



A substantial and front-loaded stimulus package was launched in response to the COVID-19 crisis

The government swiftly launched a substantial and front-loaded stimulus package and accommodative monetary policy to mitigate the health, social and economic impact. The announced emergency package amounted to 6.4 percent of GDP in Poland, 3.1 percentage points higher than the EU average, as of December 2020.¹⁰ Meanwhile, liquidity support announced by the government to the tune of 5.0 percent of GDP was comparatively lower relative to the EU average (Figure 1.11, Figure 1.12). The sizeable economic package has helped support the recovery of economic agents' confidence and helped preserve employment, even though the number of registered unemployed rose by 180,000 by December 2020, year-on-year, while the average paid employment was 67,000 lower over the same period.

Fiscal space narrowed considerably in the wake of the COVID-19 crisis. The large fiscal stimulus together with the decline in economic activity brought about an increase in general government deficit (ESA 2010) to an estimated 7 percent of GDP in 2020 (Figure 1.8). The central government deficit rose sharply to an estimated 8 percent of GDP in 2020, while both the local government and the Social Insurance Fund saw



Figure 1.11 COVID-19 fiscal policy responses by country

Source: IMF. Note: EU = European Union. Figure includes all measures announced through March 17, 2021.



Figure 1.12 Fiscal responses and outlook

A. Composition of fiscal response to COVID-19





C. Cumulative change in cyclically adjusted primary balance



D. Output gap and fiscal impulse prospects in ECA and Poland



Sources: IMF; World Bank.

Note: ECA = Europe and Central Asia.

B.-D. Shaded areas indicate forecasts.

A. Figure shows total measures either planned or under consideration as of March 17, 2021, as a share of 2019 nominal GDP. Sample includes 18 advanced economies.

B. Projections are latest World Bank forecasts included in the June 2021 Global Economic Prospects report.

Bars denote latest forecast; dashes correspond to the percent difference between the latest projected levels of GDP and those in the January 2020 Global Economic Prospects report.

C.D. Aggregates are calculated using 2019 real GDP weights at average 2010-19 prices and market exchange rates.

C. Projections are International Monetary Fund calculations included in the April 2021 World Economic Outlook report.

D. Fiscal impulse defined as change in the cyclically adjusted primary balance (CAPB) from previous year. Decline in the CAPB indicates fiscal consolidation; increase in the CAPB indicates fiscal expansion. Fiscal impulse projections are International Monetary Fund calculations included in the April 2021 World Economic Outlook report.

an improvement in their balances to 0.2 percent of GDP and 0.9 percent of GDP, respectively (Figure 1.10). Despite the important contraction in output, government revenues increased by an estimated 2.9 percent in 2020, albeit a marked deceleration from an average 9.3 percent annual increase over the 2017–2019 period. Government revenues were stronger than expected,

increasing by 0.6 percentage points of GDP to 41.7 percent of GDP in 2020. Meanwhile, general government spending rose sharply, by 18 percent year-on-year in 2020, on account of the sizeable fiscal package, compared with an average 7.7 percent annual increase over the period 2017–2019. Spending increased 6.9 percentage points of GDP to reach 48.7 percent of GDP in 2020.

Box 1.2 Poland's COVID-19 emergency package

The support measures implemented in 2020 impacted the fiscal deficit by an estimated 5.2 percent of GDP, with an additional 1.5 percent of GDP expected in 2021. The economic packages consisted of increased unemployment benefits, wage subsidies, self-employed benefits, ZUS social insurance contribution exemptions, loan guarantees (BGK Liquidity Guarantee Fund), forgivable loans to micro-enterprises (ZI 5,000), liquidity loans to enterprises (PFR), with up to 75 percent eligible for forgiveness subject to employment conditions. The economic packages also included additional funding for the health care sector in the amount of 0.24 percent of GDP (Figure B1.2.1). The fiscal measures in 2020 were comprised primarily of PFR liquidity loans write-offs for micro, small and medium enterprises (MSMEs) (about 34 percent of fiscal measures). Wage subsidies, SIC exemptions, and benefits to self-employed individuals amounted to about a third of the fiscal package.

A large part of the stimulus emergency support was disbursed in Q2 2020. This included grants under the "Financial Shield" financed by the Polish Development

Fund (PFR), ZUS social insurance contribution exemptions, wage subsidies, and loans to micro-enterprises. Its aim was to protect the labor market and provide companies with financial liquidity. New credit guarantees and micro-loans for entrepreneurs estimated at ZI 74 billion (3.3 percent of GDP) were also approved. As of December 2020, the Polish Development Fund has disbursed close to ZI60 billion (2.6 percent of GDP) of its liquidity program, benefitting more than 340,000 micro, small and medium enterprises (Figure B1.2.2).

Poland has extended some measures into 2021 as a second and then a third wave of the pandemic affected the recovery. In response to the second wave of the pandemic, measures were targeted primarily to the most affected sectors, and including write-offs of repayable loans for SMEs subject to conditions, extensions of liquidity loans, guarantees, wage subsidies and ZUS social insurance contribution exemptions, benefits for the self-employed and subsidized loans, amounting to an estimated 1.5 percent of GDP. A worsening of pandemic trend may lead to a further extension and broadening of relief measures.



Figure B1.2.1 Anti-crisis and financial Shields in 2020

Figure B1.2.2 Support to enterprises

Source: based on information from Convergence Program Updates 2014 - 2015, and the Multi-annual State Financial Plans.

Many of the measures are one-off and have been largely withdrawn in 2021. Reflecting the composition of the COVID-19 support package, subsidies were the largest driver of the increase in general government spending in 2020. Subsidy increases accounted for nearly 45 percent of the increase in government spending, or 3.3 percentage points of GDP, followed by social benefits, which accounted for a quarter of the increase (1.5 percentage points of GDP) (Figure 1.13). The general government deficit is expected to decline to 5.8 percent of GDP in 2021 as the economic recovery strengthens, and as temporary stimulus measures are being withdrawn.

Figure 1.13 Change in general government spending in 2020



Sources: World Bank analysis based on Eurostat data.

Due to the large deficit, general government debt rose by 11.9 percentage points to 57.5 percent of GDP in 2020 (Figure 1.14). This is the highest debt level recorded in almost three decades. The State Treasury debt reached 47.2 percent of GDP, up 4.8 percentage points, while public debt following the Public Finance Act (PFA) definition reached 47.8 percent of GDP, still well below the 55 and 60 percent of GDP thresholds defined in the PFA and the Constitution. An important part of the stimulus has been provided through the Polish Development Fund (PFR) and Bank Gospodarstwa Krajowego (BGK)¹¹, which have issued bonds worth 7.1 percent of GDP in 2020.

The National Bank of Poland's accommodative monetary policy contributed to lowering financing costs. The NBP, like other central banks in ECA, has responded to the economic and financial market shocks induced by the COVID-19 pandemic by

Figure 1.14 General government balance







Source: GUS.

Figure 1.16 General government balance by government level



Source: Eurostat.

cutting short-term policy rates to a level close to their effective lower bounds. The NBP cut its reference rate from 1.5 percent to 0.1 percent; launched a quantitative easing program; and lowered the reserve requirement from 3.5 percent to 0.5 percent. To stabilize financial markets and support activity, NBP employed an asset purchase program amounting to nearly 4.6 percent of GDP. This, in conjunction with spillovers from accommodative monetary policies in advanced economies, has contributed to financial market stability.





Source: Eurostat.

The decline in Treasury bond yields reduced the costs of public debt servicing, thus providing additional room for fiscal stimulus. The NBP balance sheet has expanded by 5 percent of GDP between February and June 2020, and an additional 3 percent of GDP between July and December 2020, as the NBP intervened on the foreign exchange market. Increased liquidity provision to banks meant that the balance sheet expansion was significantly more than the asset purchases. Domestic banks have also increased their government-issued bond holdings. The expectations are that the NBP will maintain an accommodative monetary policy stance through further currency interventions and asset-purchase programs.

FISCAL FRAMEWORK

Despite a strong regulatory framework, fiscal performance deteriorated even prior to the COVID-19 crisis. After the fiscal position improved considerably over the last decade, with the fiscal deficit narrowing and the stock of public debt remaining below 60 percent of GDP, Poland's fiscal performance worsened in both 2017 and 2019. Over this period, Poland's compliance with the requirements under the preventive arm of the EU Stability and Growth Pact has been unsatisfactory under European Commission guidelines. The reforms implemented to raise revenue through increased tax compliance and expanded excise taxation have proven insufficient to offset additional social spending, especially with respect to pension and child benefits (IMF 2021). The European Commission's assessments of Poland's fiscal position relative to budgetary objectives have concluded that Poland's structural balance breaches the MTO by an increasing margin (European Commission 2018). In 2020, the European Commission found that there was significant deviation from the adjustment required to comply with the MTO both in terms of change in structural balance and annual growth of net public expenditure (European Commission 2020).

To strengthen adherence to the EU framework, the Council of the European Union has formally provided recommendations to Poland as part of its yearly round of country-specific recommendations. Under the preventive arm of the SGP, it has been recommended that Poland limit the nominal growth of government primary expenditure (net of discretionary revenue measures and one-offs) to 4.2 percent in 2019, consistent with a structural adjustment of 0.6 percent of GDP. Poland did not meet this benchmark, however, resulting in a deviation of 2 percent of GDP. The structural deficit deteriorated by 0.8 percentage points of potential GDP, implying a significant deviation of 1.4 percent of GDP in 2019 from the recommended 0.6 percent of GDP structural adjustment. The primary balance deteriorated by 0.5 percentage points to 0.7 percent of GDP, while the structural primary balance increased by 1.1 percentage points to 1.5 percent. This meant a significant deviation from the recom-


Figure 1.18 Stability and Growth Pact preventive arm procedure

Source: Adapted from Deutsche Bundesbank Monthly Report June 2017.

mended fiscal adjustment path consistent with the MTO in 2019.¹² Poland was recommended in July 2019 to ensure that the nominal growth rate of net primary government expenditure does not exceed 4.4 percent in 2020, to take further steps to improve the efficiency of public spending; and to ensure the sustainability of the pension system (Council of the European Union 2019). As assessed by the European Commission in 2020, Poland did not comply with the recommended cap of expenditure growth, as

the net primary government expenditure — when corrected for one-off expenses — grew 9.8 percent in 2019 (European Commission 2020). In June 2020, however, as the COVID-19 virus was spreading rapidly, the Council of the European Union pivoted its focus and emphasized the need to effectively address the COVID-19 crisis, sustain the economy, and support the near-term recovery — in line with the general escape clause of the Stability and Growth Pact (Council of the European Union 2020).



Due to the expected severe impact of the COVID-19 pandemic, the Stability and Growth Pact general escape clause was activated in March 2020. This allows for a temporary departure from the recommended fiscal adjustment path towards the MTO, provided it does not endanger fiscal sustainability in the medium term. The general escape clause does not suspend the procedures of the SGP, but rather allows the member state to depart from the budgetary requirements. The general escape clause has remained active in 2021–22. Meanwhile, the national escape clause was also triggered to suspend budgetary constraints. Furthermore, the full flexibility foreseen under EU State Aid rules was afforded, particularly through the adoption of the Temporary Framework in March 2020 and subsequent extensions, to allow increased public support to research, testing and production of products relevant to fight the COVID-19, to protect jobs and to further support the economy, to provide targeted public support to otherwise viable companies that have entered into financial difficulty as a result of the coronavirus outbreak, and allow recapitalization and subordinated debt measures.

Box 1.3 Stability and Growth Pact fiscal rules and national fiscal rules in Poland

Poland's fiscal framework is based on a set of rules included in the national Public Fiance Act, the Constitution, and the EU Stability and Growth Pact:

A debt rule at the public sector level;

A stabilizing expenditure rule (Public Finance Act) setting an upper limit for the state budget expenditure set for the next year (covering approximately 90 percent of the general government expenditures);

Individual debt limits at the level of local governments; and

Abiding by the reference values for the general government nominal deficit (3 percent of GDP) and the general government debt (60 percent of GDP), and attaining the MTO.

The agreements on the monetary union have established the fiscal rules, with the Maastricht Treaty of 1992 introducing the requirement to comply with government deficit and debt ratios of 3 percent and 60 percent of GDP, respectively, as conditions for participation. The 1997 the Stability and Growth Pact (SGP) introduced additional requirements, which have been modified and amended over time. In 2012, the fiscal compact was adopted, including the decision that the SGP requirements were, in principle, to be anchored in national law with provisions of binding force and a permanent character. (See Treaty on Stability, Coordination and Governance in the EMU, Title III, Fiscal Compact.)

As an EU member, Poland is required to adhere to the EU Stability and Growth Pact. Under this framework, Poland must comply with rules limiting the general government deficit and debt at 3 percent and 60 percent of GDP, respectively. Furthermore, Poland has agreed with the European Commission on an MTO, targeting a structural deficit of 1 percent of GDP-slightly higher than the 0.5 percent of GDP threshold used as a benchmark for other EU member states.

The national fiscal rules consist of a 60 percent of GDP ratio ceilling for public debt (local definition that deviates from EDP debt) inscribed in the Constitution of Poland and a safety threshold of 55 percent of GDP as inscribed in Poland's Public Finance Act, both of which form a strong framework for the conduct of sustainable fiscal policy. The national limit on the growth of public expenditures-or the Stabilizing Expenditure Rule, in force since 2015-is aligned with the MTO and provides further guidance on the sound management of public finances. The national expenditure rule was amended in December 2015, inter alia replacing actual inflation with the inflation target followed by the National Bank of Poland (2.5 percent) in the formula to calculate expenditures. Given the lower inflation economic environment, the amendment de facto allowed higher expenditures than under the previous version of the rule. The ammendment also allowed for increased expenditure in the event of one-off and temporary revenue measures.

The Public Finance Act (Article 182) requires an ex post assessment of compliance with the rule to be included in the report on the execution of the budget law that is submitted to the Parliament and the Supreme Audit Office by May 31st and discussed in the Supreme Audit Office report on budget implementation.

The Stabilizing Expenditure Rule, however, excludes EU funds, which is an important source of revenue for the government and is expected to grow over the next few years as part of the EU Multiannual Financial Framework (MFF) 2021 – 27 and the Next Generation EU (NGEU) program supporting post-pandemic recovery.

FISCAL POLICY

Fiscal policy was largely procyclical in the decade leading up to the COVID-19 pandemic

Poland did not manage to "graduate" from procyclical fiscal policy, but its stance largely mirrored that of the euro area. Several economies in Europe, including Poland, were unable to escape procyclicality in the decade prior to the COVID-19 crisis. For Poland, much like other EMDEs, procyclical fiscal policy is a longstanding issue. Of the EMDEs that graduated from procyclicality, stronger institutions-including robust legal and investment frameworks, minimal corruption, and reliable governanceappeared to be a factor (Frankel, Vegh, and Vuletin 2013). In Poland, although fiscal frameworks have strengthened over the past decade, several indicators of governance—including accountability, political stability, rule of law—have eroded, despite the ECA average either remaining stable or making improvements in these areas.¹³

Fiscal policy amplified, rather than smoothed, business cycles—expanding during economic upturns and contracting during economic downturns.¹⁴ Although usually procyclical fiscal policy is more characteristic of EMDE fiscal policy, the euro area was also forced to conduct severe procyclical fiscal consolidation in the aftermath of the GFC and European debt crisis (Figure 1.19.a and Figure 1.19.b; Riera-Crichton, Vegh, Vuletin 2016; Cugnasca and Rother 2015).

Following procyclical fiscal consolidation in the wake of the European debt crisis, temporarily waning EU structural funds and still-tight fiscal policy weighed on growth in Poland over 2015–16. Although fiscal policy presented a drag on growth in Poland, authorities partly mitigated the adverse impact on household consumption by expanding social protection, including a benefit for families with children through the Family 500+ program. In ECA, the stance was similar but reflected the need for procyclical fiscal tightening in the region's energy exporters amid the oil price plunge of 2014–16 (Figure 1.19.c; Stocker et al. 2018; Wheeler et al. 2020).

Fiscal policy pivoted from procyclical tightening to procyclical expansion by 2019 as the economic recovery gathered momentum in the period leading up to the pandemic—aided by a strong rebound in investment amid fresh EU funding. Rising capacity constraints and core inflation suggest several Central European economies, including Poland, were expanding at a pace above potential output (Figure 1.19.d). Nevertheless, the shift toward expansionary procyclical fiscal policy was also observed in the euro area. In ECA, however, fiscal policy turned decidedly countercyclical as macroeconomic policy frameworks strengthened in some large economies such as the Russian Federation.

The dampening effect of procyclical fiscal tightening was partly offset by sizable EU structural funds in the decade leading up to the pandemic. Despite substantial external headwinds—including the European debt crisis and escalating geopolitical and trade tensions—underlying drivers of longterm growth strengthened in Poland over 2010-19. Accelerating investment—helped by EU funding and inward FDI—further deepened global value chain integration and corresponded to a period of rapid TFP and labor productivity growth, sharply contrasting the productivity slowdown in the euro area and ECA (Figure 1.19.e; Dieppe 2020). Per capita income convergence with the euro area gained momentum and debt dynamics improved on the back of robust growth (Kindberg-Hanlon and Okou 2020).





Figure 1.19 Output gaps and fiscal impulses by country

Sources: Haver Analytics; IMF; Penn World Tables; World Bank.

CE = Central Europe, ECA = Europe and Central Asia.

A.-B. Fiscal impulse defined as change in the cyclically adjusted primary balance (CAPB) from previous year. Decline in the CAPB indicates fiscal consolidation; increase in the CAPB indicates fiscal expansion.

B.-D. Aggregates calculated using 2019 real U.S. dollar GDP weights at average 2010-19 prices and market exchange rates.

D. Sample includes Hungary, Poland, and Romania. Last observation is 202101.

E. TFP = total factor productivity. Labor productivity defined as output per worker in 2017 U.S. dollars.

Note: Estimated using data up to 2020Q4

Box 1.4 Fiscal policy cyclicality assessment

The assessment of fiscal cyclicality is sensitive to the measurement of output gaps. In order to assess the cyclicality of fiscal policy, an estimate of the output gap is needed to gauge the business-cycle phase. Measuring output gap at the national level is complex since it is an unobserved variable. Nevertheless, output gaps can be estimated using a range of methods. Univariate filters – which typically decompose quarterly output series into trend and cycle components – are often expanded into multivariate filters that include inflation, unemployment, various financial indicators, and commodity prices. Filtering techniques distinguish short-run deviations of output from trends, which is most relevant for the assessment of fiscal policy cyclicality. A multivariate filter,

which incorporates more economic information than univariate filters, is the technique used in this analysis.

Output gap estimates vary widely for European economies, including for Poland. Nevertheless, estimates are largely in the same direction—implying that the assessment of fiscal policy cyclicality is broadly consistent, regardless of the underlying assumptions (Figures B.1.4.1 - 4). There are important exceptions, however, such as in 2017, for which the direction of cyclicality cannot be easily determined since output gap estimates range from -1.1 percent to 1.1 percent of potential GDP for Poland and from -0.6 percent to 0.8 percent of potential GDP for the euro area.

Figure B.1.4.1 Output gap estimates for Poland







Figure B.1.4.2 Output gap estimates for the euro area



Figure B.1.4.4 Estimated output gaps in ECA



Sources: IMF; World Bank

Note: ECA = Europe and Central Asia.

B.1.4.1 – 4. Shaded area indicates forecasts. Fiscal impulse defined as change in the cyclically adjusted primary balance (CAPB) from previous year. Decline in the CAPB indicates fiscal consolidation; increase in the CAPB indicates fiscal expansion. Fiscal impulse projections are International Monetary Fund calculations included in the April 2021 World Economic Outlook report. Error bars indicate confidence interval around one standard deviation.

B.1.4.2, B.1.4.4 Aggregates are calculated using GDP weights at average 2010-19 prices and market exchange rates.

PUBLIC DEBT SUSTAINABILITY

Recent debt dynamics

Poland's general government debt level has been below the EU Growth and Stability Pact norms and below the EU and ECA averages. Large deficits averaging 5.5 percent of GDP contributed to the increase in the debt-to-GDP ratio following the GFC and the euro area debt crisis, with debt rising 9.8 percentage points of GDP between 2008 and 2013. Weak growth and stalled revenue collections stemming from the euro area debt crisis widened the deficit in 2013, subsequently pushing debt up to 56.4 percent of GDP. Fiscal consolidation in the context of sustained growth and a one-off debt transfer in 2014 helped bring Poland's general government debt down markedly (Figure 1.20). Following formal adoption of the Stabilizing Expenditure Rule in 2015, Poland successfully realigned government revenues with spending, which helped bring the fiscal deficit within the EU limit of 3 percent and contributed to downward pressure to public debt. These measures contributed to the sustainability of its public finances through a decrease in public debt, to 52 percent of GDP on average over the 2010–19 period —above the ECA average of 44 percent, but lower than the EU average of 71 percent (Figure 1.21).

Figure 1.20 Poland debt relative to EU and ECA averages



Sources: IMF; World Bank.

Note: EU = euro area; ECA = Europe and Central Asia. Aggregates calculated as simple averages.

Figure 1.21 Poland debt ratio is below EU average in 2019



Strong growth accompanied by primary surpluses averaging 0.7 percent of GDP over the 2017–2019 period allowed further significant debt reduction (Figure 1.22). The growth effect is estimated at 2.4 percentage points over the 2017–2019 period, while the inflation effect amounted to an additional 1 percentage point of GDP per year on average (Figure 1.23). Over this period there was a marked decline in general government debt of almost 9 percentage points, from 54.6 percent of GDP in 2016, to 45.6 percent of GDP by 2019. External general government debt fell below 20 percent of GDP by 2019. At end-2019, the public debt-to-GDP ratio stood at 45.6 percent, well below the EU27 average of 77.6 percent of GDP.

Figure 1.22 Debt dynamics





Figure 1.23 Contributions to changes in debt-to-GDP ratio

The general government debt increased from 45.6 percent of GDP in 2019 to 57.5 percent of GDP in 2020. A large fiscal deficit of 7 percent of GDP, the accumulation of financial assets, FX effects,¹⁵ and the 2.7 percent decline in GDP were among the factors contributing to this expansion of debt in 2020. Off-budget funds were used in 2020 on a much larger scale than in the past. At the end of 2020, the value of liabilities due to the issue of own-debt securities by BGK (for the COVID fund) and PFR (Polish Development Fund Financial Shield) amounted to 7 percent of GDP. In this way, fiscal rules that refer to the local definition of public debt were circumvented. Over 90 percent of the general government debt is issued by the central government, which according to the EU rules also includes off-budget SPVs.

The debt composition is not a source of significant risks. With an average maturity of outstanding State Treasury debt estimated at 4.7 years, and the share of short-term government debt at around 1 percent of the total debt, the rollover and refinancing risks are low. The share of debt denominated in foreign currency declined to 28.4 percent of general government debt by the end of 2019 (12.9 percent of GDP), from 35.3 percent of debt in

2014 (Figure 1.24). Exchange rate risks have therefore declined, and hedging can help mitigate the residual risks. The share of debt held by non-residents remains relatively elevated at 41.4 percent of total debt (18.9 percent of GDP), and it remains a source of vulnerability, although it has declined from 57.1 percent of general government debt in 2014 (29 percent of GDP) (Figure 1.25). The country's public debt management strategy assumes that the share of foreign currency debt in total debt will remain at less than 30 percent and external debt in total debt around 40 percent over the medium term.





Source: GUS.

Figure 1.25 Composition of general government debt



Source: GUS.

Public debt is sustainable amid planned fiscal adjustment

Public debt is expected to stabilize at higher levels than in the pre-COVID period. The envisioned pace of economic recovery and fiscal adjustment in Poland will not be sufficient to return fiscal deficits or government debt to pre-pandemic projections over the medium term (Figure 1.26). Nevertheless, public debt in Poland is projected to stabilize at a sustainable rate, partly thanks to wide fiscal space prior to the pandemic and relatively benign external financing conditions, as well as to the size of the planned fiscal adjustment (IMF 2021). Fiscal sustainability gap estimates, however, are sensitive to sharp reassessments of growth or sudden shifts in financial market conditions.

Figure 1.26 Fan chart evolution of debt-to-GDP ratio



Source: World Bank DSA calculations.

Fiscal adjustment needs are relatively modest in

Poland. A baseline estimate of the fiscal sustainability gap—assuming current benign financing conditions and GDP growth projections—suggests Poland needs to reduce its primary deficit by 1.2 percentage points of GDP to stabilize its gross government debt as of 2021.¹⁶ The size of the adjustment needed in Poland is modest relative to the ECA average, as well as to other Central European economies and the euro area (Figure 1.27). Moreover, projections for both the primary balance and cyclically adjusted primary balance suggest that the planned pace of fiscal adjustment is swift enough to quickly stabilize debt, albeit at higher levels relative to pre-pandemic trends (Figure 1.28).



Figure 1.27 Projected fiscal balance and government debt in Poland

Sources: IMF; World Bank. Note: 2025 projections are IMF calculations included in the April 2021 World Economic Outlook report.

Figure 1.28 Cyclically adjusted primary balances



Sources: IMF; World Bank.

Note: Shaded area indicates projections. Aggregates calculated using GDP weights at average 2010-19 prices and market exchange rates. Projections are IMF calculations included in the April 2021 *World Economic Outlook* report.

Public debt to GDP ratio is sensitive to interest payments and growth assumptions

A sudden reassessment of growth or shift in market conditions could substantially increase fiscal adjustment needs. Fiscal sustainability gap estimates are sensitive to sharp reassessments of growth or sudden shifts in financial market conditions. Worsethan-expected growth or tighter-than-anticipated financing conditions—triggered perhaps by an intensification of the pandemic or a sudden shift in investor sentiment—could result in far higher adjustment needs than projected in the baseline scenario. For instance, one standard deviation below median growth and above the median nominal interest rate could trigger a substantial rise in interest payments as a share of GDP, which would require a primary balance adjustment of 9.8 percentage points of GDP to stabilize debt in Poland—larger than the average for other economies (Figures 1.29–1.30).



Figure 1.29 Fiscal sustainability gaps in 2021

Sources: Kose et al. (2017); World Bank.

Note: CE = Central Europe. Aggregates calculated using GDP weights at average 2010-19 prices and market exchange rates. Error bars denote interquartile range. **Figure 1.30** Fiscal sustainability gaps in 2021, by condition



Sources: Kose et al. (2017); World Bank.

Note: CE = Central Europe. Aggregates calculated using GDP weights at average 2010-19 prices and market exchange rates. Error bars denote interquartile range. Under stressed conditions, growth is one-standard deviation below and interest rates one-standard deviation above the country-specific median.

Type of shock	Magnitude of the shock	Impact
Primary balance shock	Deterioration in the primary balance by 1 p.p. in 2022 and 2023.	Public debt would increase to 56.9 percent in 2026, 2.8 p.p. higher than in the baseline. Gross financing needs would be proportional- ly larger in 2022 and 2023.
Growth shock	A decline in GDP growth by about 2.5 p.p. in both 2022 and 2023 relative to the base- line, along with a parallel decline in inflation and a deterioration in the primary balance.	Public debt would be at 60.6 percent of GDP in 2026, 6.5 p.p. higher than in the baseline. In all years gross financing needs would be higher.
Interest rate shock	A permanent 500 bps increase in the nomi- nal interest rate beginning in 2022	Public debt stabilizes at around 58 percent of GDP. Elevated financing needs in 2024-2026.
Exchange rate shock	A 22 percent nominal exchange rate depre- ciation in 2022, calibrated to emulate the maximum historical movement of the ex- change rate over the last 10 years.	Practically no impact on either the public debt over the medium term or on gross financing needs. This resilience reflects the predomi- nance of public debt in local currency.
Combined shock	A combination of lower GDP growth, a larger primary deficit, higher interest rates, and an exchange rate shock.	Debt/GDP ratio stabilizes above 68 percent of GDP. Gross financing needs remain significantly higher than in the baseline scenario.

Table 1.1 Debt sustainability analysis

FISCAL CONSOLIDATION

Fiscal adjustment imposes output costs that vary with the policy mix and business-cycle phase

Fiscal consolidation is associated with short-term output losses, but the magnitude depends on business-cycle positions and the policy mix. For many EMDEs, fiscal adjustment is often needed to ensure access to market financing and to restore medium-term debt sustainability. There is broad consensus, however, that fiscal consolidation is contractionary in the short term.¹⁷ Moreover, the business cycle can amplify the output losses from fiscal adjustment, as fiscal multipliers tend to be larger during recessions (Riera-Crichton, Vegh, Vuletin 2016; Jordà and Taylor 2015).

Figure 1.31 Output loss two years after fiscal consolidation



Sources: David and Leigh (2018); Eurostat; World Bank.



Figure 1.32 Total expenditure multipliers

Sources: David and Leigh (2018); Eurostat; World Bank.

Notes: "*" indicate significance at 10% significance level; EU and euro area refers to aggregates for the European Union and euro area, respectively.

Bars are cumulative output losses following fiscal adjustment. Lines indicate 95 percent confidence intervals.

Fiscal multiplier estimates for Poland suggest fiscal policy has a significant impact on output. Using the local projections model as specified over a two-year horizon, output losses from fiscal consolidation are estimated to be particularly pronounced in ECA (Figure 1.31). There is evidence, however, that the size of output losses can depend on the composition of the fiscal adjustment; in OECD countries, for instance, spending-based fiscal adjustments—such as from the expiration of fiscal support measures are estimated to generate smaller declines in output relative to tax-based fiscal adjustment (Alesina and Ardagna 2013; Alesina, Favero, and Giavazzi 2015).

Fiscal spending multipliers are sensitive to the type of expenditures and business-cycle phase. Government spending multipliers for Poland are estimated using a local projection model and range

Figure 1.33 Capital expenditure multipliers



Sources: David and Leigh (2018); Eurostat; World Bank. Notes: "*" indicate significance at 10% significance level; EU and euro area refers to aggregates for the European Union and euro area, respectively.

Figure 1.34 Fiscal multipliers in Poland during recessions and expansions



Sources: David and Leigh (2018); Eurostat; World Bank. Notes: "*" indicate significance at 10% significance level; EU and euro area refers to aggregates for the European Union and euro area, respectively.

Bars show cumulative fiscal multipliers 2 years after the fiscal shock. Output refers to expansions/recessions identified as real GDP above/ below its HP trend; Unemployment refers to expansions/recessions identified as the unemployment rate below/above its HP trend.

from 0.3 in the short term to 0.5 in the long term on par with other Central European economies and larger than in advanced EU countries (Figure 1.32; Table 1.2). Capital spending multipliers, however, are nearly twice as large as spending multipliers for total government expenditures—having important implications for the upcoming Next

Generation EU funds (Figure 1.33). Consistent with the literature, both measures of spending multipliers for Poland are larger during recessions, with capital expenditure multipliers being particularly sizeable during periods of weak labor markets when the unemployment rate is above its trend level (Figure 1.34; Table 1.3).¹⁸

Expenditure multipliers total expenditure										
	1 quarter	2 quarters	3 quarters	1 year	2 years	3 years				
Poland	0.256* (0.12)	0.286* (0.12)	0.350* (0.12)	0.397* (0.13)	0.543* (0.14)	0.390* (0.12)				
EU	0.018 (0.23)	0.158 (0.25)	0.236 (0.27)	0.275 (0.27)	0.423* (0.25)	0.174 (0.14)				
Hungary	0.333* (0.10)	0.328* (0.11)	0.321* (0.11)	0.324* (0.12)	0.611* (0.19)	0.626* (0.21)				
Romania	0.310 (0.19)	0.452* (0.24)	0.481* (0.25)	0.446* (0.23)	0.567* (0.12)	0.362* (0.10)				
Croatia	0.496* (0.18)	0.463* (0.15)	0.408* (0.13)	0.379* (0.13)	0.306* (0.09)	-0.125 (0.10)				
Euro Area	-0.003 (0.24)	0.165 (0.25)	0.271 (0.27)	0.328 (0.27)	0.452* (0.27)	0.187 (0.14)				
Italy	0.275 (0.24)	0.413 (0.30)	0.480 (0.34)	0.481 (0.33)	0.945* (0.32)	0.541* (0.15)				
Spain	0.074 (0.10)	0.093 (0.09)	0.119 (0.09)	0.128 (0.09)	0.159* (0.07)	0.152* (0.04)				
France	0.033 (0.18)	0.020 (0.17)	0.057 (0.17)	0.114 (0.16)	0.170 (0.14)	0.106 (0.08)				
Greece	0.101 (0.06)	0.116 (0.07)	0.118* (0.07)	0.127* (0.07)	0.178* (0.10)	0.091 (0.09)				
		Expenditure m	ultipliers capital e	xpenditure						
	1 quarter	2 quarters	3 quarters	1 year	2 years	3 years				
Poland	0.921* (0.19)	0.907* (0.19)	0.933* (0.20)	0.916* (0.21)	0.918* (0.23)	0.756* (0.25)				
EU	0.405 (0.90)	0.617 (0.84)	0.708 (0.83)	0.727 (0.81)	0.842 (0.88)	0.444 (0.67)				
Hungary	0.366* (0.16)	0.474* (0.19)	0.580*	0.663*	1.418*	1.748*				
Romania		()	(0.22)	(0.25)	(0.42)	(0.94)				
	0.498 (0.35)	0.520 (0.40)	0.453 (0.40)	(0.25) 0.460 (0.38)	(0.42) 0.707* (0.25)	(0.94) 0.366* (0.19)				
Croatia	0.498 (0.35) 0.575* (0.24)	0.520 (0.40) 0.638* (0.25)	0.453 (0.40) 0.644* (0.23)	(0.25) 0.460 (0.38) 0.640* (0.22)	(0.42) 0.707* (0.25) 0.493* (0.25)	(0.94) 0.366* (0.19) 0.119 (0.21)				
Croatia Euro Area	0.498 (0.35) 0.575* (0.24) 0.130 (0.96)	0.520 (0.40) 0.638* (0.25) 0.374 (0.88)	0.453 (0.40) 0.644* (0.23) 0.453 (0.86)	(0.25) 0.460 (0.38) 0.640* (0.22) 0.505 (0.86)	(0.42) 0.707* (0.25) 0.493* (0.25) 0.451 (0.86)	(0.94) 0.366* (0.19) 0.119 (0.21) 0.230 (0.62)				
Croatia Euro Area Italy	0.498 (0.35) 0.575* (0.24) 0.130 (0.96) -0.490 (0.38)	0.520 (0.40) 0.638* (0.25) 0.374 (0.88) -0.441 (0.44)	0.453 (0.40) 0.644* (0.23) 0.453 (0.86) -0.376 (0.49)	(0.25) 0.460 (0.38) 0.640* (0.22) 0.505 (0.86) -0.370 (0.51)	(0.42) 0.707* (0.25) 0.493* (0.25) 0.451 (0.86) -0.074 (0.63)	(0.94) 0.366* (0.19) 0.119 (0.21) 0.230 (0.62) 0.431 (0.71)				
Croatia Euro Area Italy Spain	0.498 (0.35) 0.575* (0.24) 0.130 (0.96) -0.490 (0.38) 0.168 (0.31)	0.520 (0.40) 0.638* (0.25) 0.374 (0.88) -0.441 (0.44) 0.253 (0.27)	0.453 (0.40) 0.644* (0.23) 0.453 (0.86) -0.376 (0.49) 0.389 (0.25)	(0.25) 0.460 (0.38) 0.640* (0.22) 0.505 (0.86) -0.370 (0.51) 0.482* (0.22)	(0.42) 0.707* (0.25) 0.493* (0.25) 0.451 (0.86) -0.074 (0.63) 0.608* (0.16)	(0.94) 0.366* (0.19) 0.119 (0.21) 0.230 (0.62) 0.431 (0.71) 0.590* (0.14)				
Croatia Euro Area Italy Spain France	0.498 (0.35) 0.575* (0.24) 0.130 (0.96) -0.490 (0.38) 0.168 (0.31) 0.211 (0.69)	0.520 (0.40) 0.638* (0.25) 0.374 (0.88) -0.441 (0.44) 0.253 (0.27) 0.216 (0.65)	0.453 (0.40) 0.644* (0.23) 0.453 (0.86) -0.376 (0.49) 0.389 (0.25) 0.262 (0.64)	(0.25) 0.460 (0.38) 0.640* (0.22) 0.505 (0.86) -0.370 (0.51) 0.482* (0.22) 0.388 (0.65)	(0.42) 0.707* (0.25) 0.493* (0.25) 0.451 (0.86) -0.074 (0.63) 0.608* (0.16) 0.777 (0.49)	(0.94) 0.366* (0.19) 0.119 (0.21) 0.230 (0.62) 0.431 (0.71) 0.590* (0.14) 0.432 (0.39)				

Table 1.2 Expenditure multipliers

Standard errors in parentheses * p<0.1



		1 quarter	2 quarters	3 quarters	1 year	2 years	3 years
Deland (1)	Expansions	0.279* (0.16)	0.352* (0.16)	0.452* (0.17)	0.533* (0.16)	0.658* (0.14)	0.533* (0.12)
Poland (1)	Recessions	0.383* (0.20)	0.436* (0.18)	0.478* (0.19)	0.576* (0.21)	1.087* (0.32)	0.561* (0.32)
Deleved (O)	Expansions	-0.463 (0.30)	-0.488 (0.35)	-0.505 (0.42)	-0.512 (0.51)	-0.318 (0.31)	-0.361 (0.22)
Poland (2)	Recessions	0.368* (0.11)	0.450* (0.12)	0.566* (0.14)	0.649* (0.17)	0.980* (0.27)	0.687* (0.26)
Hundony (1)	Expansions	0.358* (0.14)	0.362* (0.15)	0.332* (0.16)	0.292* (0.17)	0.301 (0.41)	0.071 (0.36)
Hungary (1) Recessions		0.377* (0.17)	0.466* (0.16)	0.572* (0.17)	0.726* (0.19)	0.808* (0.16)	1.418* (0.65)
Hungary (2) Expansion	Expansions	0.461* (0.20)	0.430* (0.20)	0.385* (0.20)	0.356 (0.22)	0.311 (0.35)	0.095 (0.23)
	Recessions	0.399* (0.15)	0.449* (0.17)	0.477* (0.20)	0.476* (0.23)	0.809* (0.24)	0.940* (0.32)
Hely (1)	Expansions	0.141 (0.22)	0.174 (0.33)	0.167 (0.42)	0.169 (0.41)	0.928* (0.40)	0.484* (0.20)
italy (1)	Recessions	-0.087 (0.36)	0.219 (0.35)	0.443 (0.31)	0.670* (0.33)	1.038* (0.32)	0.547* (0.22)
Italy (2)	Expansions	-0.180 (0.26)	-0.241 (0.38)	-0.229 (0.44)	-0.154 (0.40)	0.568* (0.33)	0.490* (0.16)
italy (2)	Recessions	0.852* (0.37)	1.074* (0.41)	1.024* (0.36)	1.067* (0.38)	1.379* (0.47)	0.641* (0.30)
Spain (1)	Expansions	0.035 (0.17)	-0.011 (0.15)	0.047 (0.13)	0.040 (0.11)	0.070 (0.09)	0.095 (0.07)
	Recessions	0.157 (0.12)	0.204 (0.13)	0.234* (0.14)	0.257* (0.15)	0.277* (0.15)	0.181* (0.09)
Spain (2)	Expansions	0.631* (0.16)	0.468* (0.17)	0.436* (0.16)	0.368* (0.14)	0.177* (0.09)	0.0893* (0.05)
Spain (2)	Recessions	0.052 (0.12)	0.092 (0.12)	0.125 (0.12)	0.148 (0.13)	0.210* (0.11)	0.178* (0.07)

Table 1.3 State-contingent expenditure multipliers total expenditure

Note: Standard errors in parentheses

* p<0.1

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(1) recessions are identified using GDP deviations from trends estimated with the HP filter;

(2) recessions identified when the unemployment rates exceed trend unemployment, estimated using the HP filter.

		1 quarter	2 quarters	3 quarters	1 year	2 years	3 years
Deland (1)	Expansions	1.002* (0.27)	1.002* (0.26)	1.022* (0.29)	0.999* (0.30)	0.838* (0.30)	0.521* (0.26)
Poland (1)	Recessions	0.869* (0.24)	0.802* (0.26)	0.764* (0.27)	0.806* (0.26)	1.258* (0.40)	1.061 (0.72)
Deland (2)	Expansions	-0.158 (0.50)	-0.681 (0.55)	-0.890* (0.54)	-0.858 (0.52)	-0.548 (0.41)	-0.276 (0.21)
Poland (2)	Recessions	1.452* (0.27)	1.543* (0.25)	1.651* (0.26)	1.536* (0.24)	2.095* (0.46)	1.558* (0.59)
Expansions		0.347 (0.22)	0.529* (0.28)	0.646* (0.34)	0.660 (0.41)	1.499* (0.80)	2.692 (3.98)
nungary (1)	Recessions	0.627* (0.27)	0.443 (0.30)	0.310 (0.34)	0.162 (0.41)	-0.443 (0.98)	-4.410 (11.50)
Expansions		0.516* (0.26)	0.632* (0.31)	0.740* (0.39)	0.803* (0.46)	1.045* (0.59)	0.196 (0.41)
Hungary (2)	Recessions	0.911* (0.44)	1.133* (0.45)	1.301* (0.45)	1.324* (0.44)	2.794* (0.72)	5.918 (6.14)
Creatia (1)	Expansions	0.438* (0.26)	0.491* (0.25)	0.534* (0.24)	0.558* (0.27)	0.183 (0.44)	-0.322 (0.34)
Croatia (I)	Recessions	0.996* (0.25)	1.006* (0.20)	0.851* (0.18)	0.663* (0.15)	0.384* (0.11)	0.269 (0.17)
Oraștia (2)	Expansions	0.790* (0.42)	0.918* (0.40)	0.954* (0.47)	0.971* (0.43)	1.233* (0.28)	0.710* (0.16)
Croatia (2)	Recessions	0.681* (0.28)	0.733* (0.31)	0.694* (0.27)	0.642* (0.30)	0.469 (0.32)	-0.032 (0.24)
Spain (1)	Expansions	0.494* (0.22)	0.548* (0.20)	0.670* (0.20)	0.760* (0.19)	0.705* (0.16)	0.484* (0.15)
	Recessions	0.448 (0.83)	0.552 (0.76)	0.669 (0.71)	0.875 (0.76)	1.400* (0.82)	1.533* (0.77)
Spain (2)	Expansions	0.794* (0.22)	0.831* (0.22)	0.915* (0.27)	0.933* (0.28)	0.705* (0.16)	0.536* (0.11)
Spain (2)	Recessions	-0.552 (0.51)	-0.304 (0.46)	-0.207 (0.42)	-0.084 (0.40)	0.308 (0.34)	0.544* (0.26)

Table 1.4 State-contingent expenditure multipliers capital expenditure

Note: Standard errors in parentheses

* p<0.1

(1) recessions are identified using GDP deviations from trend estimated with the HP filter;

(2) recessions identified when the unemployment rates exceed trend unemployment, estimated using the HP filter.

Poland can put in place policy measures to bolster a robust recovery

The fiscal impulse is projected to weigh more heavily on growth in Poland than in other European economies in the near term, reflecting differences in the pace of policy adjustment (Figure 1.35). In a downside scenario of economic growth, especially in light of the recent deterioration in pandemic trends, policymakers could consider postponing fiscal consolidation efforts to prevent additional output losses (World Bank 2021a, 2021b; Guénette and Yamazaki 2021).

Once recovery from the COVID-19 pandemic is on solid footing, Poland needs to restore fiscal space in the context of additional expenditure pressures arising from the aging population and the decarbonization process, while ensuring greater efficiency of its fiscal system. Poland has considerable social and infrastructure spending needs, which are critical in the context of its aging population and the country's commitments to decarbonization. The government also needs to protect capital spending to sustain medium-term growth. Revenue and expenditure policies must be consistent with the deficit reduction path mandated by the Stability and Growth Pact.

Although Poland has adequate fiscal space within its policy framework to confront adverse shocks in the near term, expenditures will eventually need to be realigned with revenues to replenish buffers. Enhancing spending efficiency could help ease budget pressures and yield growth dividends. These efforts can be complemented by measures that improve domestic revenue mobilization, including those that make the tax structure more efficient.

Harnessing sizable EU funds. Poland benefits from sizable EU funding, including the upcoming Next Generation EU (NGEU) recovery package—which could amount to about 4.5 percent of 2020 GDP in additional funding for Poland over the next five or so years (IMF 2021). The boost to growth from the NGEU funding could help offset the drag from fiscal consolidation, especially given that fiscal spending multipliers are higher for capital spending (relative to total spending) and when output gaps are nega-



Figure 1.35 Fiscal impulse over 2020-22

Note: Fiscal impulse defined as change in the cyclically adjusted primary balance (CAPB) from previous year. Decline in the CAPB indicates fiscal consolidation; increase in the CAPB indicates fiscal expansion.



Figure 1.36 Spending consolidation composition

Sources: IMF; World Bank.

Note: Poland Convergence Program 2021.

tive. Although the funds are expected to be distributed over 2022–23, limited near-term absorption is likely to prolong the full execution of these funds. To this end, bolstering administrative capacity could improve absorption rates and accelerate investment.

Bolstering the underlying drivers of long-term growth. To support a robust, resilient, and sustainable recovery, policy makers could leverage spending reductions with parallel structural reforms that lift po-

Sources: IMF; World Bank.

tential growth (Eyraud, Gaspar, and Poghosyan 2017; Anderson, Hunt, and Snudden 2014). Some of the adverse effects of the pandemic on potential output over the next decade could be stemmed by a combination of ambitious, but not unprecedented, reforms targeting physical and human capital investment, as well as measures that strengthen governance and enhance the business climate (Kilic Celik, Kose, and Ohnsorge 2020).

Notes

- Poland GDP per capita, PPP (current international \$) reached USD26,862 in 2015, compared with USD38,216 for the EU.
- 2. The sharp increase in the deficit in 2009 was the result of the crisis but also to a fiscal stimulus of nearly 2 percent of GDP, comprising reductions in personal income tax, higher public investment, and social transfers.
- 3. The expenditure stabilization rule introduced in the Public Finance Act imposed a limit on expenditure as follows: $E(t)=E(t-1)^*(Y'+C)^*CPI+\varepsilon$; where the limit E(t) is linked to the previous year's limit E(t-1) and trend growth (Y' is average GDP growth in 8 years with MoF projection for t-1 and t, corrected for a factor depending on deficit and debt (C) and then multiplied by NBP inflation target (CPI), plus an adjustment parameter ε , which depends on revenue measures. Currently it also depends on the cumulative deviation of the general government deficit from MTO (+/- 6%).
- Act of 10 September 2015 on amending the Tax Ordinance Act and other acts (Journal of Laws item 1649 as amended).
- 5. Source: Ministry of Finance; European Commission, Study and Reports on the VAT Gap in the EU-28 Member States: 2017 Final Report.
- 6. Poland Convergence Program 2019.
- CASE Report for the European Commission, Study and Reports on the VAT Gap in the EU-28 Member States: 2018 Final Report; and estimates of the Ministry of Finance for 2018.
- 8. Debt Sustainability Monitor, European Commission.
- 9. GDP on a seasonally adjusted, calendar adjusted basis.
- Covid-19 anti-crisis measures regularly updated at: imf.org/en/Topics/imf-and-covid19/ Policy-Responses-to-COVID-19#P.
- 11. The Public Finance Act does not consider PFR and BGK public sector entities.
- 12. European Commission, Assessment of the 2020 Convergence Program for Poland, May 2020.
- WGI https://info.worldbank.org/governance/wgi/ Home/Reports; Kaufmann, Kraay and Mastruzzi 2010.
- 14. Throughout this figure, procyclical fiscal policy occurs when the fiscal impulse (measured as the negative annual difference between the cyclically adjusted primary balance as a percent of potential GDP) and output gaps are either both positive or both negative. Countercyclical fiscal policy occurs when the fiscal impulse is positive (negative) when the output gap is negative (positive).

- Appreciation of the zloty value of debt denominated in foreign currency
- 16. Similar to Kose et al. (2017), fiscal adjustment needed is calculated as: $b\left(\frac{r\cdot g}{1\cdot g}\right) x_{t-1}$, where b = stock of gross general government debt (as percent of GDP), r = net general government interest payments (as share of general government gross debt stock), g = average annual GDP growth during the past 10 years, and $x_{t-1} = \text{primary balance}$ (percent of GDP) in the previous year.
- 17. A key challenge, however, is that estimation requires the identification of exogenous fiscal adjustment episodes—namely, fiscal responses that are orthogonal to cyclical fluctuations in real activity. Fiscal consolidation episodes in this box are identified using the cyclically-adjusted primary balance (CAPB) as a share of potential GDP—a common identification approach. An alternative approach, pioneered by Romer and Romer (2010), uses narrative history to identify fiscal adjustment episodes driven by policy actions related to longterm fiscal sustainability considerations. Refer to Escolano et al. (2014) for a survey of the relevant literature.
- 18. State-dependent fiscal multipliers are estimated using two methods to identify periods of economic slack: (1) a negative cumulative output gap exceeding 1 percent of GDP two quarters prior to fiscal expansion, and (2) the employment rate exceeding its trend level, estimated using the Hodrick-Prescott (HP) filter. Consistent with the literature, total and capital spending multipliers are larger in recessions, with capital expenditure multipliers being particularly large during the periods of weak labor markets when the unemployment rate is above its trend level.

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ANNEX 1.1 KEY ECONOMIC INDICATORS

Table A.1 1 Key economic indicators and outlook

Annual percent change unless indicated otherwise

	2018	2019	2020 e	2021 f	2022 f	2023 f
Real GDP growth, at constant market prices	5.4	4.7	-2.7	3.8	4.5	3.9
Private Consumption	4.5	3.9	-3.1	4.0	4.1	3.3
Government Consumption	3.5	6.5	4.4	3.5	3.4	4.6
Gross Fixed Capital Investment	9.4	6.1	-9.6	6.0	7.1	8.8
Exports, Goods and Services	6.9	5.2	-0.2	5.4	5.9	5.5
Imports, Goods and Services	7.4	3.0	-1.9	6.3	6.1	6.8
Real GDP growth, at constant factor prices	5.3	4.6	-2.8	3.8	4.4	3.9
Agriculture	-9.1	-0.8	-3.0	4.4	1.0	1.0
Industry	7.0	2.1	-1.0	3.1	3.1	2.8
Services	5.0	6.1	-3.7	4.2	5.3	4.5
Inflation (Consumer Price Index)	1.6	2.3	3.4	3.4	3.0	3.0
Current Account Balance (% of GDP)	-1.3	0.5	3.5	2.1	1.6	0.5
Net Foreign Direct Investment (% of GDP)	-2.6	-1.6	-1.4	-1.2	-1.0	-1.0
Fiscal Balance (% of GDP)	-0.2	-0.7	-7.0	-6.8	-4.3	-3.7
Debt (% of GDP)	48.8	45.6	57.5	59.5	59.0	58.4
Primary Balance (% of GDP)	1.2	0.7	-5.7	-5.7	-3.0	-2.5

Source: World Bank.

Notes: e= estimate; f= forecast. The cutoff date for the data used in this report was June 2, 2021.

Table A.1 2 General Government Finances

Percent of GDP

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Revenues	38.4	39.1	39.4	38.8	39.0	39.1	38.7	39.8	41.3	41.1	41.7
Taxes	20.4	20.6	20.0	19.6	19.8	19.9	20.5	21.1	21.9	21.7	22.0
PIT	4.3	4.3	4.5	4.5	4.6	4.7	4.8	5.0	5.3	5.3	n.a
СІТ	1.9	2.0	2.1	1.8	1.8	1.8	1.8	1.9	2.1	2.2	n.a.
VAT	7.6	7.8	7.2	7.1	7.2	7.0	7.2	7.8	8.1	7.9	8.0
Excise	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.3	0.2	0.2	n.a.
Other taxes	6.3	6.2	6.1	5.9	5.8	5.9	6.2	6.2	6.1	6.1	n.a.
Social contributions	11.8	12.2	13.1	13.4	13.3	13.5	13.8	13.9	14.1	14.2	14.7
Other revenues	6.2	6.4	6.2	5.7	5.9	5.7	4.4	4.8	5.3	5.2	5.0
Capital revenues	1.3	1.7	1.3	1.0	1.2	1.1	0.6	0.7	1.2	1.1	1.1
Sales of goods and services	2.7	2.5	2.5	2.5	2.6	2.5	2.4	2.4	2.4	2.3	2.1
Other current revenue	2.2	2.2	2.4	2.2	2.2	2.1	1.4	1.7	1.8	1.8	1.8
Expenditure	45.8	44.1	43.1	43.0	42.6	41.7	41.1	41.3	41.5	41.8	48.7
Expense	40.1	38.2	38.5	39.0	38.2	37.3	37.9	37.5	36.9	37.5	44.1
Compensation of employees	11.1	10.7	10.5	10.6	10.6	10.4	10.4	10.2	10.1	10.3	10.9
Use of goods and services	6.3	5.7	5.7	5.7	5.7	5.7	5.5	5.5	5.7	5.7	5.9
Interest	2.5	2.5	2.7	2.5	2.0	1.8	1.7	1.6	1.4	1.4	1.3
Subsidies	0.9	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0.4	0.5	3.8
Social benefits	16.5	15.7	15.9	16.5	16.4	16.2	17.1	17.0	16.7	17.2	18.7
Other expense	2.8	2.9	3.0	3.0	2.9	2.8	2.6	2.7	2.5	2.4	3.5
Other current expenditure	2.2	2.2	2.3	2.4	2.1	2.2	2.0	1.9	2.1	2.0	2.3
Capital transfers	0.6	0.7	0.7	0.6	0.8	0.6	0.6	0.9	0.4	0.4	1.2
Net acquisition of nonfinancial assets	5.7	5.8	4.6	4.0	4.4	4.4	3.2	3.8	4.7	4.3	4.5
Gross operating balance	-1.7	0.9	0.8	-0.3	0.7	1.8	0.8	2.3	4.4	3.6	-2.4
Net lending/borrowing	-7.4	-5.0	-3.8	-4.2	-3.6	-2.6	-2.4	-1.5	-0.2	-0.7	-7.0

Sources: Eurostat, European Commission.

CHAPTER 2

TAX ASSESSMENT



OVERVIEW OF THE TAX SYSTEM

Poland's tax system relies heavily on indirect taxes and generates relatively low revenue compared to the EU average.¹ Consolidating the budget from all levels of government, total tax revenue (including mandatory social security contributions) amounted to 35.2 percent of GDP in 2019 (Table 2.1) compared to an EU-27 average of 40.1 percent.² In the same year, indirect taxes represented 39.9 percent of total tax revenue — 5.7 percentage points above the EU-27 average. At 32 percent and 19 percent, respectively, the top statutory rates on personal and corporate income in Poland are low compared to the corresponding EU-27 average rates of 38.8 percent and 21.5 percent (bottom left panel Figure 2.1). On the other hand, the standard 23 percent value added tax (VAT) rate in Poland is 1.5 percentage points higher than the EU member state average.













Sources: European Commission, OECD, and ILO.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
						As pe	rcent o	f GDP					
Indirect Taxes	14.5	14.5	12.9	13.9	13.9	13.1	12.9	13.0	13.1	13.6	14.0	14.2	14.0
VAT	8.2	7.9	7.3	7.6	7.8	7.1	7.0	7.1	7.0	7.2	7.8	8.1	8.0
Taxes and Duties on Imports Excluding VAT	0.5	0.4	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.4	0.4	0.4
Taxes on Products, Except VAT and Import Duties	4.4	4.7	3.9	4.5	4.3	4.1	4.0	3.8	3.8	4.0	4.0	4.0	3.8
Other Taxes on Production	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.5	1.7	1.8	1.7	1.7	1.9
Direct Taxes	8.3	8.4	7.2	6.7	6.7	7.0	6.7	6.8	6.9	7.1	7.3	7.8	8.0
Personal Income Taxes	5.2	5.3	4.5	4.3	4.3	4.5	4.5	4.6	4.7	4.8	5.0	5.3	5.3
Corporate Income Taxes	2.7	2.7	2.2	1.9	2.0	2.1	1.8	1.7	1.8	1.8	1.9	2.1	2.2
Other	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.4	0.4	0.4
Social Contributions	11.9	11.3	11.2	10.9	11.2	12.1	12.3	12.2	12.5	12.8	12.9	13.1	13.2
Employers'	4.6	4.5	4.5	4.6	4.5	4.8	4.8	4.9	4.9	5.0	5.1	5.1	5.1
Households'	7.3	6.8	6.7	6.3	6.7	7.2	7.5	7.3	7.6	7.8	7.8	8.0	8.1
Capital Transfers	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total	34.6	34.1	31.2	31.4	31.8	32.0	31.9	31.9	32.4	33.4	34.1	35.1	35.2
						As pe	rcent o	f Total					
Central Government	52.4	53.2	51.1	52.6	52.3	49.7	48.6	48.7	48.4	48.6	49.2	49.5	49.3
Local Government	13.3	13.5	13.1	12.6	12.3	12.6	12.6	13.0	12.9	12.8	12.7	12.7	12.6
Social Security Funds	34.1	32.9	35.5	34.4	35.0	37.3	38.4	37.9	38.3	38.0	37.6	37.2	37.6
EU Institutions	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6

Table 2.1 Tax Revenue by Type of Source and Level of Government, 2007 – 2019

Source: European Commission.

Overall, the Polish tax system shows limited progressivity. First, indirect taxes have limited redistributive potential. Thus, the high reliance on these taxes to finance the state budget constrains the tax system's overall progressivity. Second, the combined system of personal income tax (PIT) and social security contributions (SSC) on labor income is only weakly progressive. SSC weighs heavily (around 28.5 percentage points) and proportionately on the tax wedge of employees across the income distribution. Third, several of the current PIT and SSC special treatments and exemptions provide tax reliefs primarily to high-income earners, giving rise to efficiency and equity concerns.

Local governments receive a relatively high share of tax revenue, but this is mostly raised via the shared PIT and CIT taxation. Local governments in Poland include municipalities (*gminy*), counties (*powiaty*), and regions (*województwa*).³ In 2019, these three levels of government received 12.6 percent of the total consolidated tax revenue raised in the same year (Table 2.1), a level above the EU average of 10.2 percent. In 2018, around 74 percent of this revenue came from shared PIT and corporate income tax (CIT) taxation, both of which are managed by the central government. This left little room for local governments to independently adjust their revenue if needed.

The main characteristics of the Polish tax system are common among Central and Eastern European (CEE) countries. These countries usually rely on indirect taxes as the main source of financing for the government budget and raise lower tax revenue on average than in Western EU member states. In 2019, the level of total tax revenue relative to GDP in Poland was close to that in the Czech Republic (36.1 percent), Hungary (36.5 percent) and Slovenia (37.4 percent) and above that in other CEE countries (top left panel in Figure 2.1). Similarly, while in 2019 indirect taxes as a share of total tax revenue in Poland were 5.7 percentage points above the EU-27 average, they were in line with most of Poland's CEE peers (top right panel Figure 2.1).

A large part of the potential tax base remains untaxed and is an important untapped source of public funding. According to estimates from the European Commission (2017), in 2013 Poland had the highest rate of undeclared labor in the EU.⁴ The report estimated that undeclared labor produced 27.3 percent of the gross value added in the private sector, compared to an EU-28 weighted average of 14.3 percent. ILO (2018) estimates for 2016 show that 20.1 percent (15.9 percent outside agriculture) of jobs were informal, 53.3 percent of which were offered by formal firms.⁵ Tax avoidance and evasion of CIT and VAT have been declining in recent years, but remain sizable.⁶ In 2018, they were responsible for a loss of tax revenue estimated at 33 percent and 9.3 percent of the respective theoretical tax bases. International profits, offshoring, and the underreporting of foreign wealth also contribute to the drain in the potential tax base for PIT, CIT, inheritance, and property taxes.⁷ Labor force participation in Poland remains relatively low compared to peer countries, especially among women, with negative consequences on the total PIT base. In 2019, only 70.85 percent of the working-age population participated in the labor market, 2.44 percentage points below the EU average and far from the 78.57 percent seen in Germany (Figure 2.10). On this aspect, Poland also tends to perform worse than peer economies such as the Czech Republic and Estonia (bottom right panel Figure 2.1). Labor force participation is particularly low for women. The gender participation gap in 2019 stood at 13.8 percentage points compared to 8.4 percentage points in Germany and an EU average of 10.9 percentage points. This high gender gap is both a driver and a sign of gender-based inequities and can magnify gender inequality both outside and within the household. Additionally, the low participation of women in the labor market depresses aggregate labor supply, with negative consequences on the total PIT base. Tackling gender disparities in the labor market remains critical to address this issue.

DIAGNOSTICS BY INSTRUMENT

Personal Income Tax and Social Contributions

Overview of the System

The combined PIT and SSC system in Poland is only mildly progressive and features several special treatments applicable to specific sources of income. Revenue from personal income taxes (PIT) amounted to 5.3 percent of GDP in 2019, equivalent to 66 percent of the total revenue collected from direct taxes. In line with the specificities of the Polish tax system, the size of PIT revenue relative to GDP is small compared to the EU-27 average of 9.6 percent but in line or above that seen in several CEE peers. Social security contributions (SSC), excluding health contributions, were equivalent to 13.2 percent of GDP in 2019, in line with the EU-27 average, but below that of most Western European countries. The Polish PIT system includes a general progressive scheme that is mandatory for income earned under a labor contract; an optional flat rate scheme for the self-employed; and several separate treatments for income earned from a list of specific sources. As a rule, PIT in Poland is filed individually. However, couples who have been married for the whole fiscal year can opt to be taxed jointly.⁸

General Scheme and Labor Income

The Polish PIT system was introduced in 1992 and was gradually reformed over the last two decades. Between 1998 and 2008, the system featured three income brackets with tax rates of 19 percent, 30 percent, and 40 percent. In 2009, the number of income brackets was reduced to two with marginal rates of 18 percent and 32 percent. The 18 percent rate was further decreased to 17 percent in October 2019. In the same year, the amount of tax-deductible costs was increased from Zl 1,335 (Zl 1,668 for commuters) to the current level of Zl 3,000 (Zl 3,600 for finance a new disability fund. The basic tax allowance was also adjusted. The current phaseout design of the general PIT allowance came about in 2017, replacing the previous universal flat allowance. This reform increased the tax benefits for low earners and decreased them for high earners, increasing the progressivity of the system. **As of January 2021, the general progressive PIT**

commuters) and a solidarity levy was introduced to

As of January 2021, the general progressive PIT scheme consists of two income-dependent tax rates and a progressive general tax allowance (Table 2.2). The general scheme applies to the income earned under labor contracts and civil law contracts as well as to income from pensions.⁹ The progressive scheme also applies to self-employed workers who do not opt for the alternative flat rate scheme. The taxable income of employed workers is defined as the gross wage earned minus social contributions (excluding health contributions) paid by the employee. Up to Zl 3,000 of deductible costs, increased to Zl 3,600 if the worker commutes, can

	General Scheme		Self-Employment			
Base	Gross wage minus so (excluding health cor	ocial contributions ntributions) paid by em	Revenue minus social security contributions			
Deductible Costs	ZI 3,000 (ZI 3,600 if	commuting)	Actual costs related to self-employment			
	Above	Below	Rate	Choose between		
First Bracket	ZI O	ZI 85,528	17 percent	flat 19 percent rate		
Second Bracket	ZI 85,528	-	32 percent	or general scheme (PIT first rate of 0 percent not available for young		
Workers up to 26 years old	Workers up to 26 yea offsetting income tax	ars old receive a tax re on their income up to	venue deduction 2I 85,528.	self-employed even if they choose salaried regime)		
		Yea	arly Tax Allowance			
Formula	 ZI 1,360 for people ZI 1,360 minus the (tax base - 8,000)/ than 8,000 and up ZI 525.12 for tax b ZI 525.12 minus th (tax base - 85,528 than 85,528 and u 	e with tax base of 8,00 e value calculated as 8 (5,000, for people with to 13,000 ase higher than 13,00 ne value calculated as)/41,472, for people w p to 127,000	Cannot be claimed if the taxpayer chooses the flat 19 percent option			

Source: Bachas et al. (2020) and statutory rates.

be deducted from the worker's taxable income.¹⁰ Taxable income below Zl 85,528 is taxed at a basic rate of 17 percent, while taxable income above the Zl 85,528 threshold is taxed at a basic rate of 32 percent. The tax threshold is doubled for couples opting for joint taxation. Since August 1, 2019, the normally taxable income below Zl 85,528 earned by workers up to 26 years old is not taxed.¹¹ On top of these two marginal rates, the general PIT scheme features a progressive tax allowance, which cancels the tax liability for individuals earning up to Zl 8,000. The allowance is phased out rapidly between Zl 8,000 and Zl 13,000 and more slowly thereafter, disappearing above Zl 127,000. The system results in a mildly progressive PIT schedule (Figure 2.2), with an average tax rate that rapidly increases with incomes up to Zl 13,000, flattening out between Zl 20,000 and Zl 85,528 and slowly increasing again thereafter. This structure results in a mildly progressive PIT. Since January 2019, a new 4 percent solidarity levy applies on high incomes (from any source) above Zl 1 million.

Figure 2.2 PIT Rates by Income Tax Base (General System)



Source: Statutory rates.

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Notes: The average annual (gross) wage in 2018 was equal to ZI 55,271 (OECD). The x-axis corresponds to the PIT tax base. Tax rates are for income earned on labor by a worker older than 26 years old. Deductions of health insurance contributions and tax-deductible costs are not considered.

Self-Employed Flat Scheme

Since 2004, self-employed individuals can choose one of four schemes: the general progressive scheme, a flat 19 percent rate, a lump-sum tax, or a fixed tax rate. The self-employed who opt for the flat tax cannot benefit from the progressive tax

allowance. The taxable base for the self-employed is computed as total revenue minus social security contributions. Workers can fully deduct the costs that they incur when performing their activity. The reduced o percent rate on income earned by individuals up to 26 years old is not available to the self-employed, irrespective of the selected taxation regime. Natural persons who conduct a micro business activity can also apply for a system of simplified tax forms. Individuals opting for the simplified forms can either be subject to a tax on registered revenue (before the deduction of costs) or to a fixed tax rate depending on the type of their business activities. To be eligible for the simplified tax forms, taxpayers need to earn revenue below a limit that as of January 2021 is set at Euro 2 million.

Childcare Tax Credit

Besides the basic tax allowance and the deductibility of costs as described above, individual taxpayers with dependent children have the right to a childcare tax credit. The amount of the credit per child increases based on the number of dependent children. As of 2020, the monthly tax credit is equal to Zl 92.67 for the first and second child, Zl 166.67 for the third child, and Zl 225 for the fourth and above child. The childcare tax allowance for the first child is available only to parents earning less than Zl 112,000 annually. The bulk of the public support to families with children in Poland is nonetheless provided via direct cash benefits, which equal Zl 500 per month for each child up to age 18.¹² As a result, the size of the childcare tax credit is relatively low. The benefit on the first child is currently equivalent to 3.6 percent of the median monthly net income. As a comparison, the monthly benefit paid in Germany for each of the first two children amounts €204, or 10.4 percent of the median monthly net income.

Capital Income and Other Specific Treatments

Income earned from capital and other specific sources is taxed separately and is subject to a specific tax treatment. In general, capital income is taxed separately at a flat rate of 19 percent. This includes income from dividends, interest on savings, gains from capital funds, gains from the sale of securities, the selling of private properties and capital gains gained abroad. Individuals may choose to subject their earned rental income to either the general progressive system or a flat 8.5 percent rate for income up to Zl 100,000 and 12.5 percent above this threshold.¹³ Finally, income earned in competitions and gambling is taxed at a flat 10 percent rate.

Under the current Polish tax law, residents are required to pay tax on the receipt of dividends, interest, and realized capital gains from foreign assets. However, the law does not tax gains from foreign assets held indirectly through an intermediary offshore fund. Taxes are paid only when returns are paid out to Polish resident investments. This exception favors tax avoidance of capital income from foreign sources, allowing residents to legally avoid paying capital income taxes by investing their savings in an offshore fund.

Social Security and Public Health Contributions

Employers and employees are required to pay mandatory social security contributions, which are used to finance several social insurance and assistance programs. Employees working under a labor contract must pay 11.26 percent of their total gross salary to the pension and disability insurance funds, while employers need to contribute for an additional 16.26 percent. Neither employee nor employer pension and disability contributions are required on incomes above a maximum salary cap that is adjusted every year. In 2021, the cap is set at Zl 157,770. The employee pays an additional 2.45 percent contribution to the sickness insurance fund. The employer must also pay contributions to the accident insurance fund, Labor Fund, Solidarity Fund for Persons with Disabilities and Employee Guaranteed Benefits Fund. The accident insurance contribution comes to 1.67 percent for firms with up to nine employees and varies between 0.67 percent and 3.33 percent, depending on the sector of activity for such firms. Contributions to the Labor Fund and Solidarity Fund for Persons with Disability sum up to 2.45 percent of the total gross salary. Finally, employers must contribute to the Employee

Guaranteed Benefits Fund, which guarantees employees' benefits in the case of their employer's insolvency and amount to 0.1 percent of the total gross salary.

Since 1999, when the Polish health financing system was transformed into an insurance-budgetary system, employees and the self-employed must contribute to the public health insurance fund. For workers under a labor contract, these amount to 9 percent of the assessment base, which is equal to an individual's gross income reduced by the amount of social security contributions paid by the employee. Small farmers and their household members, unemployed workers, and recipients of social assistance are not required to pay contributions to the health fund. These are instead covered by the state budget. Part of the contribution corresponding to 7.75 percent of the assessment base is deducted from the employee's PIT liability while the remaining share, equal to 1.25 percent of the assessment base, is not deductible.

The self-employed are also required to contribute to the social security system. Contributions are calculated using a theoretical assessment base. This theoretical base is 60 percent of the predicted average wage in the enterprise sector. Any additional contribution up to 250 percent of the average wage is voluntary. The self-employed who either have revenue below 50 percent of the minimum wage (or are in the first six months of their activities) are not required to contribute. Additional specific treatments apply to the self-employed in small firms and the self-employed earning less than Zl 120,000.14 Health contributions for the self-employed are computed using a theoretical assessment base equal to 75 percent of the average wage in the enterprise sector in the fourth quarter of the previous year.

Specific rules also apply to individuals working under a civil law contract. Employers and employees who stipulate a commission contract pay mandatory social contributions on an assessment base at least equal to the minimum wage, while additional contributions are only voluntary.¹⁵ Health contributions follow the same rule applied to workers employed under a labor contract. Workers employed under a results-based contract, on the other hand, are not subject to any mandatory social security or health contribution.

Main Issues with the Current System

Limited Progressivity of PIT and SSC

Overall, the Polish PIT and SSC system exhibit a limited degree of progressivity (Box 2.1). Several factors contribute to this outcome. First, the basic progressive scheme features only two marginal tax rates, with a top rate well below the average in EU countries, and a relatively limited tax allowance that concentrates progressivity in PIT at very low incomes. Second, SSCs represent a disproportionately big fraction of the tax burden for salaried employees. With the SSC rate flat up to Zl 157,770 and decreasing thereafter, the incidence of SSCs on the labor tax wedge strongly limits the degree of progressivity (Figure 2.3). These two factors combine to produce a very limited progressivity in the tax burden on labor income (Figure 2.4). Data from the OECD for 2019 shows that in Poland, the differential in the total (including SSC) average tax wedge on labor income between workers earning 67 percent and 167 percent of the average wage was equal to 1.1 percentage points, the second lowest among European OECD countries (Figure 2.3).¹⁶

Box 2.1 Equity and poverty analysis of current fiscal system and announced tax reforms

As part of the present review, the team assessed the redistributive effects of the current Polish tax system and of the tax reforms that are part of the proposed Polish "New Deal" program. The analysis is based on the Commitment to Equity (CEQ) modelling framework, calibrated using the 2019 Polish Household Budget Survey (PHBS). The CEQ approach provides a comprehensive assessment of the impact of fiscal policy on inequality and poverty, accounting for both the effect of direct and indirect taxes and subsidies and for the effect of public spending on education and health.^a

Redistributive performance of the current system

Overall, the Polish fiscal system is found to reduce income inequality and poverty, but this result is driven by existing expenditure programs rather than by taxes. The pension system represents the biggest equalizing force in the current system, reducing the Gini coefficient from 0.54 to 0.4 and the absolute and national extreme poverty index from 24 percent to 7 percent and from 25 percent to 8 percent, respectively.^b The combined effect of direct taxes and transfers and indirect taxes further decrease the Gini coefficient by 0.06 and the absolute and national poverty index by 3.6 and 3.7 percentage points, respectively. This equity enhancing effect is however driven solely by direct transfers. The CEQ assessment, in fact, finds the current system of direct taxes to be close to neutral, while indirect taxes are found to be regressive, increasing the Gini coefficient from 0.33 to 0.34 and the two poverty measures from 2.9 to 3.4 percent and from 3.2 to 4.3 percent, respectively.

Equity assessment of child tax credits

Child tax credits are found to be mildly progressive and contribute to the reduction in the poverty rate among households with children. Categorizing households based on their pre-family-transfers disposable income, around 43 percent of child credits resources go to households in the first four quartiles of the income distribution, while 34 percent go to those in the top four quartiles. The policy contributes to reducing the extreme poverty rate in households with 1 child, 2 children, and 3 or more children by 0.1, 0.3, and 2.1 percentage points (Table B2.1.1). Overall, the program represents, on average, 1 percent, 2 percent, and 3.7 percent of the disposable income of these three types of households, covering a total of 6.6 million children in the country.

Table B2.1.1 Poverty among households with children for disposable income with and without child tax credits

	Extreme poverty among households with					
	1 child	2 children	3+ children			
Disposable income minus family support programs°	4.0%	5.7%	13.9%			
+ Child tax credit	3.9%	5.4%	11.8%			

Source: Poland CEQ model.

Redistributive effect of PIT and HIC reforms under the proposed Polish "New Deal"

On May 15, 2021, the ruling coalition announced a large reform program that the government plans to implement in the coming months. The program, known as the Polish "New Deal", contains major reforms of the PIT and HIC system. These include: an increase in the PIT tax allowance to guarantee a zero PIT rate on income up to ZI 30,000; an increase in the first PIT threshold from ZI 85,528 to ZI 120,000; the abolition of HIC deductibility from the tax-payers' PIT liability and the homogenization of HIC across sources of income. The government also announced that a compensating tax credit will be provided to workers under a labor code or self-employment contract earning monthly gross wages between ZI 5,701 and ZI 11,141, which will offset any increase in PIT for these taxpayers.

The results of the analysis show that the proposed reform will reduce the average joint PIT and HIC burden over most of the income distribution (Figure B2.1.1). The benefits of the reform are expected to be larger for taxpavers between the 2nd and 8th decile of the income distribution, while an increase in the average PIT/HIC burden is expected in the top decile and below the fifth percentile.^d Assessing the reform by household type shows that retirees are, on average, predicted to benefit the most thanks to their overrepresentation around the middle of the income distribution. Most of the effect of the proposed reform is expected to come from the increase in the tax allowance and from the changes to the HIC system, with the increase in the PIT threshold affecting a more limited number of taxpayers. The simulation estimates that the overall reform will reduce the total PIT revenue by ZI 21.29 billion.e

Figure B2.1.1 Average joint PIT and HIC burden by PIT income base percentiles: current scheme and "New Deal" proposals' simulation.



a https://commitmentoequity.org/

^b The absolute poverty rate is computed using the \$5.5 PPP headcount index while the national extreme poverty rate is based on the minimum existence level as defined by the Polish Institute for Labor and Social Studies (IPiSS).

^c Family support programs include: the child tax credits; the family allowance with its supplements; the Family 500+ program for every child; the Good Start program.

^d While the reform will increase the average tax burden on the bottom decile of the income distribution, this increase will be small in absolute terms and is estimated in the order of ZI 5 per month on average.

^e This is likely to be an upper estimate of the reduction in PIT revenue due to the underrepresentation of high-income households in the PHBS used in the CEQ analysis.

Several special treatments applicable to specific sources of income or under specific circumstances are a third factor reducing the progressivity of the Polish PIT and SSC system. The favorable PIT and SSC treatments of self-employment income and the flat rate on capital income disproportionately benefit high-income earners who earn a large share of their income from capital and self-employment. The optional joint PIT scheme also allows high-income earners to reduce their average income tax rate. The effective tax rate on high-income earners is thus often substantially lower than those presented in Figure 2.1. As pointed out in Bachas et al. (2020), for example, only 4.8 percent of Polish PIT taxpayers have part of their income subject to the maximum 32 percent PIT rate.



Figure 2.3 Tax Wedges by Wage Level in OECD Countries

Source: OECD.

Atypical Contracts, Labor Market Duality and Equity.

Besides its lack of progressivity, observers have pointed out that the current PIT and SSC system incentivizes the overuse of alternative (or atypical) work arrangements in the labor market (World Bank 2020). The use of atypical contracts exacerbates the stark duality seen in the Polish labor market, where in 2017 around one quarter of employees worked under a temporary labor contract — the second-highest share in the EU. In the same year, 1.2 million people worked exclusively under a civil law contract and around 170 thousand worked outside the agricultural sector as self-employed in firms serving mainly or only a single client (World Bank 2020).¹⁷

From the perspective of the employer/contractor, the specific SSC treatment of these two atypical work arrangements makes them particularly advantageous compared to standard temporary or open-ended labor contracts. Mandatory contributions on these contacts tend in fact to be considerably lower compared to the contributions required on standard labor contracts, thus reducing labor costs (Figure 2.4). On the other hand, atypical contracts of this sort give minimal protection to the employed person and provide limited contributions to the employee's pension fund.

The use of atypical work arrangements as a substitute to regular labor contracts thus raises concerns in terms of both horizontal and vertical equity. From a horizontal equity perspective, using atypical contracts for what are effectively employer-employee relations often means that workers with similar qualifications performing similar jobs can work under very different conditions and be subject to different tax wedges. Experiences from other EU countries suggest that a widening duality in the labor market tends to amplify disparities between incumbent/older workers and workers new to the labor market or the recently unemployed.¹⁸ The social cost of this duality is exacerbated when low-paying jobs under atypical contracts stop being steppingstone opportunities for younger individuals and become the norm in their early working years. A similar equilibrium in the labor market can have negative consequences on the human capital of young workers and affect important personal choices, with long-lasting consequences on their well-being.19

Notes: Tax wedges are expressed as percentages of gross wage earnings. Data is for 2019.



Figure 2.4 Fiscal Burden by Annual Gross Income

Source: Polish Ministry of Finance.

Notes: ZUS: social security contributions. NFZ: health contributions. Gross adjusted income equals: revenue – (tax deductible costs + the amount of tax-exempt revenue) + (social and health insurance contributions paid by the payer or the state budget + tax-deductible costs for employment contracts and civil law contracts + social security contributions included in the costs of economic activity).

Part of the unequal treatment associated with different contracts is not immediately visible in a worker's net paycheck and will only materialize upon the employee's retirement. If present behavioral biases are strong, by excessively discounting the value of contributing to their retirement, workers may accept jobs benefiting from limited SSC contribution without receiving compensatory wage differentials. Furthermore, the low wages usually associated with these work arrangements are unlikely to allow workers under these contracts to make large enough additional, voluntary contributions to their pension fund to compensate for their low incomes after retirement. Their low expected retirement pensions thus raise concerns that the current overuse of atypical work arrangements might entail substantial social costs in the future. This calls for a solution that could guarantee good retirement conditions for these workers.

The fact that these atypical arrangements are increasingly used as substitutes for standard labor contracts for low-paying jobs also raises concerns in terms of vertical equity. This practice tends to amplify inequalities among salaried workers. The overuse of atypical contracts means that, besides providing lower wages, low-paying jobs are increasingly associated with the limited job security that characterizes atypical contracts and with an inadequate level of retirement contribution to the workers retirement plan. It is nonetheless important to note that employers may deem a standard contract unprofitable, given its more onerous conditions. Any attempt to solve this issue should thus compensate for its possible perverse effect on aggregate employment and on the employment of lowskilled/low-wage workers.

Corporate Income Taxes

Overview of the System

General System

The current corporate tax system in Poland features a basic 19 percent flat rate. Small firms, which get preferential tax treatment, are required to pay a flat 9 percent rate on their incomes from sources other than capital gains. Small firms are defined as enterprises that either just started their activity or earned less than ϵ_2 million in revenue (in zloty equivalent) in the previous tax year. Companies making losses in one year can carry them forward for five consecutive years and deduct them from their taxable income.²⁰ The statutory CIT rate has been gradually reduced over the past 25 years and is currently among the lowest in the EU, at 2.5 percentage points below the EU27 (simple) average. Similarly, standardized estimates of the effective tax rate on large firms (right panel Figure 2.5), which consider tax credits and allowances, show that Polish firms pay a lower CIT (16.9 percent effective rate in 2019) on their profits relative to the EU27 average (19.7 percent rate).²¹ The difference is particularly big when comparing Poland to the two biggest EU economies. The Polish effective rate on big firms in 2019 was estimated to be 12.3 and 16.8 percentage points lower than the effective rates in Germany and France, respectively. On the other hand, a low level of effective CIT rate is common in CEE countries: Hungary, Estonia, and Lithuania all feature effective CIT rates below the estimated rate in Poland. A similar picture emerges when considering the implicit CIT rate (left panel Figure 2.5), calculated as the ratio between total CIT tax revenue and theoretical CIT tax base. Once again, Hungary and the Baltic states are among the EU countries with the lowest implicit CIT rate. While above the level in these peers, the implicit CIT rate in Poland remains well below that of most other EU countries. As of 2018, the implicit rate was estimated at 13.7 percent, compared to 20.3 percent in Germany, 22.7 percent in the Czech Republic, and 35.4 percent in France.

"Estonian" CIT

Starting from the January 1, 2021 CIT, eligible taxpayers can opt for a so-called "Estonian CIT" scheme.²² The new optional scheme allows firms to delay CIT payments until profits are paid out to shareholders, thus freeing up resources that could be reinvested into a business's growth.²³ The "Estonian CIT" is available only to limited and public liability companies with total annual gross revenue not exceeding 100 million Zl and listing only natural persons as shareholders. Several additional criteria further limit the eligibility for the new scheme. The government projects that the new policy will help boost investment from small and medium businesses. Importantly, however, the eligibility threshold adds a new size-based distortion to the Polish CIT system, distorting choices and creating uncertainty for firms around the revenue cutoff.²⁴ In addition, the number of eligibility criteria and complexity of the new legislation might discourage taxpayers from benefiting from the new tax scheme, thus limiting its effective benefits for the economy.²⁵ The recent introduction of an "Estonian CIT" in Latvia also suggests that this policy can exert a high cost on the public budget, at least in the short run. After the introduction of an "Estonian CIT" scheme — covering all corporations in the coun-



Figure 2.5 Implicit and Effective CIT Rates in Selected EU Countries

Note: Effective rates are computed for large non-financial firms, with average assets and funding mix.

Source: European Commission.

try — in Latvia on January 1, 2018, the country's CIT revenue relative to GDP fell from 1.06 percent in 2018 to 0.16 percent in 2019 — a 85 percent drop compared to the previous year.

Thin capitalization rule

On January 1, 2018, the government introduced a thin capitalization rule imposing a limit to the amount of tax-deductible interest rate payments. The rule is meant to be a disincentive for firms' over-indebtment and prevent the use of debt financing (over equity) to reduce CIT payments. Taxdeductible interest costs are currently limited to 3 million Zl plus 30 percent of the EBITDA.

R&D Tax Incentives

The Polish tax system provides tax relief for firms investing in Research and Development (R&D) activities. R&D tax incentives are provided through a tax allowance based on R&D-related costs.²⁶ Firms can deduct 100 percent of their R&D expenses from their tax base, with no upper limit to the amount of R&D expenditures that can be deducted. The rate of relief for the qualifying costs is raised to 150 percent for firms with Research and Development Center (RDC) status.²⁷ Unused allowances during a given tax year can be carried forward for up to six years and they can be refunded if the firm is a start-up.

R&D tax allowances were introduced in 2016 and they have since been gradually expanded. The tax relief rate for labor expenses increased from 30 percent in 2016, to 50 percent in 2017, and to 100 percent in 2018. The rate on other R&D expenses for SMEs was raised from 30 percent in 2016, to 50 percent in 2017 and 100 percent in 2018 while the rate for big firms increased from 10 percent in 2018.²⁸ The carry-forward period for unused allowances was extended from 3 to 6 years in 2017. Prior to January 1, 2016, R&D support was limited to a system of accelerated depreciation of machinery, equipment and buildings used in R&D.

This expansion in R&D tax allowances had an important effect on the estimated cost of R&D expenditures for Polish firms (left panel Figure 2.6). OECD estimates show that in 2020, the implied tax subsidy rate on a euro spent on R&D was equal to 22 percent for both large firms and SMEs (without RDC status), while there was no estimated implied subsidy in 2015. The expansion of R&D tax allowances seems important for creating an innovator-friendly business environment. While no rigorous assessment of these recent changes has so far been carried out in Poland, evaluations of similar policies in other countries usually find important positive effects on both total R&D expenditures and on various proxies of R&D output.²⁹ Recent evidence has also shown positive spillovers across firms, which are likely to magnify the positive effect of these policies on aggregate innovation.³⁰ On the other hand, it is worth mentioning that the use of these new tax allowances so far has been relatively limited in Poland, according to data from the Polish Ministry of Development. Only 951 CIT taxpayers in 2018 and 1277 in 2019 exploited the scheme. While this number is increasing, it is important that the government work to minimize any bureaucratic complexity or uncertainty involved in the process of applying for and obtaining these incentives. The government should also ensure that firms are fully aware of the benefits that they are entitled to receive.

On January 1, 2019, an innovation support tax scheme, named Innovation Box (IB), was introduced. The IB introduces a preferential 5 percent tax rate applicable to qualifying income derived from intellectual property (IP) rights. To benefit from the tax incentive, a firm needs to conduct R&D activities related to the IP item registered in the new scheme. The firm is also required to separately report in its accounting books any income related to the IP rights. Firms are entitled to the preferential tax rate until the IP right expires. Recent research on similar types of tax incentives in other countries shows preliminary evidence of a positive effect on both the quality and quantity of R&D output.³¹ When considering the role that IP boxes can play in stimulating innovation, it is important to consider that, contrary to R&D allowances, IP boxes are income-based tax incentives. Firms thus benefit from



Figure 2.6 Public Support to R&D in Poland and other OECD Countries

Source: OECD.

Notes: Implied tax subsidy is defined as (1 – B-index). For more information on the OECD B-index see OECD (2020). Estimates of implied subsidies are for profitable firms. Data on total R&D tax incentives for France and Belgium in the third panel are from 2017.

IP boxes only if their research is successful and produces new revenue. While this can create additional incentives to invest only in high-quality innovations, it might also reduce the relative benefits from investing in highly innovative but risky research. The IP box also requires paying R&D costs in advance and is thus likely to favor bigger firms–which have easier access to finance–over smaller firms, which might be unable to pay the upfront costs of risky investments in innovation. Given these considerations and recognizing the risk of firms simply relocating IP rights from abroad to enjoy the favorable treatment granted under the IP box, the government should consider carrying out a rigorous assessment of net benefits of this policy.³²

According to the most recent OECD data, total public support in R&D as a share of GDP has been on an upward trend in Poland over recent years (Figure 2.6), reaching 0.123 percent of GDP in 2018, the last year with available data. Until 2015, public support to R&D was entirely provided via direct financing of R&D expenditures. The 2016 R&D reform introduced indirect financing through R&D tax incentives and the amount was increased thereafter. As of 2018, tax incentives still represented only 12.2 percent of the total R&D support. In the same year, the amount of R&D support relative to GDP in Poland was above the median among EU OECD countries but remained at around one third of the level in France, the EU OECD country with the highest relative public spending on R&D. Total public R&D support was nonetheless above that provided in most CEE countries except for the Czech Republic and Hungary. Support provided via R&D tax allowances remains low relative to GDP, as compared to most EU OECD countries.

Special economic zones (SEZs)

Until the end of June 2018, business activities operating in 14 Special Economic Zones (SEZs) and in possession of an officially-issued SEZ business permit had the right to a preferential tax treatment. This included a partial exemption from CIT based on the amount of investment made in SEZs and on the total wage bill for newly created local jobs. The reform implemented in 2018 essentially eliminated the SEZs system. Businesses can now apply for the tax incentives independently of their location. An investment project's right to the tax exemption is evaluated based on a series of quality criteria, but preference is still given to investments in less developed regions. Tax credits earned under the previous SEZs system can be used until 2026. SEZs were first introduced in Poland in 1994 and were aimed primarily at attracting technology transfers, business activities, and foreign direct investments (FDI) to less-developed regions. Past studies have usually found SEZs to be successful at attracting foreign investments, but their effect on employment and wages remains ambiguous.³³ Since the 2018 reform of the SEZ system, tax incentives are no longer restricted to certain regions. There may thus be more efficient and less administratively-demanding policies that would provide similar broad-based support for investment. The government should consider an in-depth assessment of the cost and benefits of the current SEZ system relative to alternative investment support schemes.

Foregone Revenue from CIT Credits and Allowances

The set of CIT allowances and preferential tax treatments currently in place represents a source of foregone tax revenue (Figure 2.7). The Polish Economic Institute (PIE 2020) estimates that the combined revenue cost of the SEZs CIT benefits and the 15 percent preferential CIT rate for small businesses amounted to Zl 3.3 billion in 2018 or 7.5 percent of the total CIT revenue.³⁴ As of 2018, the R&D tax allowances accounted for an additional Zl 318 million (0.7 percent of CIT revenue). While the direct revenue cost of the preferential CIT treatment for small firms was relatively small in 2018 (Zl 0.6 billion), it is likely to be substantially higher in the subsequent years, due to the reduction of the preferential rate from 15 percent to 9 percent implemented in 2019.



Figure 2.7 Foregone Revenue (in ZI)



CIT Tax Gap and Trend in CIT Revenue

CIT revenue as a share of GDP decreased until 2014, but has since been on an upward trend, with its share in GDP increasing by 0.38 percentage points between 2014 and 2019 (Figure 2.8). This increase happened while the government introduced a series of new CIT tax incentives that had a (likely) direct negative impact on CIT revenue. This negative pressure on tax revenue was at least partially offset by a contemporaneous improvement in CIT compliance. This was a result of a series of measures adopted by the Polish authorities in 2014 and aimed at reducing tax evasion, which focused primarily on increasing VAT compliance and included tighter regulations on business-to-business payments and a reduction in the limit on cash payments. These measures were successful at stimulating the emergence of shadow transactions.³⁵

The estimated CIT gap has decreased in recent years but remains sizable (Figure 2.9). Estimates from the Polish Economic Institute (PIE 2020), suggest that the CIT gap, measured as the difference between estimated potential CIT revenue and effective revenue being collected, has decreased between 2014 and 2018. The drop in the CIT gap since 2014 mirrored the contemporaneous increase in CIT tax revenue. While the total CIT gap is estimated to have decreased since 2014, the estimated gap induced by profit shifting to foreign destinations has increased from 0.13 percent of GDP in 2014 to 0.15 percent in 2018. As of 2018, the CIT gap is estimated to have remained considerable, equal to 33 percent of the estimated potential CIT revenue.³⁶ While it is too early to have estimates for 2020, the disruptions from the COVID-19 pandemic might have decreased tax compliance and further increased, at least temporarily, the CIT gap. Taken together these estimates suggest that there remain ample margins to improve CIT collection efficiency and limit harmful tax competition.³⁷

B. Statutory CIT Rates

2006 2007 2008 2009



Figure 2.8 CIT Rates and CIT Revenue

A. Implicit CIT Rate



2012 2013

2011

2010

- Top Rate

2014

2015 2016

- Reduced Rate

2018 2019 2020

2017

Source: European Commission.





Sources: PIE (2020) and European Commission.

Notes: Estimates for the external CIT gap account only for profit shifting to Belgium, Cyprus, Ireland, Luxembourg, Malta, the Netherlands, and Switzerland.

Discussion

The current CIT system is designed to provide fiscal support to small firms but features limited incentives to support firms' growth. Firms that are small enough (total revenue below 2 million Euros) to be eligible for the 9 percent preferential rate enjoy substantial tax benefits relative to firms that are just above the eligibility threshold. Since January 2021, firms with total revenue below Zl 100 million are also eligible for the optional "Estonian" CIT scheme, allowing them to delay CIT payments until profits are paid to shareholders.

While the preferential CIT treatment for small firms supports less-robust businesses, it can distort firms' growth decisions and limit their job-creation potential. For firms growing from below to above the size cutoff, the average tax rate on their profits goes from 9 percent to 18 percent. This produces a spike in the marginal tax rate on profits around the preferential size threshold. As (profitable) small firms consider the benefits of growing, this discontinuity in the marginal tax rate reduces the net marginal benefit from doing so.³⁸ Some firms that would otherwise find growing (staying) above the threshold to be optimal, might thus decide to remain small (downsize) to enjoy the preferential tax treatment.³⁹

Besides its effect on the growth dynamics of incumbent firms, the current system is likely to distort the returns on new business opportunities as well. A size-based policy would change the relative expected benefits of opening businesses opportunities with larger optimal sizes (e.g., businesses with relatively high returns to scale), and thus higher expected growth, in favor of firms with a lower potential size. Recent evidence suggests that this channel can be important and that disincentivizing the creation of new high growth firms could have longterm consequences on job creation.⁴⁰

The government should reconsider the trade-off between supporting firms with higher growth potential and providing support to small incumbents. The current size-based preferential treat-

ment provides support to small firms and seems primarily aimed at supporting fragile firms with relatively limited profitability and facing a high risk of exiting the market. At the same time, evidence on job creation shows that a firm's age rather than its size is the key observable predictor of its ability to create new jobs.⁴¹ With the current CIT being skewed in support of small incumbent firms with potentially low expected growth, the authorities should assess the distortionary effects of current preferential policies and evaluate the possible benefits of an alternative system-one based primarily on a direct support to investments in business growth.

Indirect Taxes

Indirect taxes are Poland's main source of tax revenue. In 2019, the revenue raised via indirect taxation was equivalent to 14 percent of GDP, 0.3 percentage points above the EU-27 average. VAT represented the main component of indirect taxation, accounting for 8 percent of GDP (Figure 2.10). Import duties, non-VAT taxes on products, and taxes on production accounted for 0.4 percent, 3.8 percent, and 1.9 percent of GDP, respectively.

Figure 2.10 Revenue by Type of Indirect Taxes by country (2019)



Source: European Commission.

Notes: Other taxes on products (ESA D.214) include excise and consumption taxes. Other taxes on production (ESA D.29) include taxes on licenses, permits, and taxes on pollution.
VAT

The VAT tax is the biggest source of tax revenue for the central government. The standard VAT rate is set at 23 percent, relatively high compared to most of its peer countries (Figure 2.11). The Polish VAT system also features two reduced rates of 8 percent and 5 percent. The 8 percent rate applies to a list of items covering mostly food products, medical supplies, restaurants and hotels, and social housing supplies. The 5 percent reduced rate applies to the supply of certain printed books and basic food products such as bread, dairy products, and meat. A special VAT tax treatment applies to farmers and small SMEs and — as in the rest of Europe — financial services are exempted from VAT.⁴² This system of preferential rates and exemptions substantially reduces the ef-

Figure 2.11 VAT Rate in Selected EU Countries



10

15

Percent

25

20

30



0

5



Source: European Commission.

fective VAT rate, which is estimated at 12.1 percent, a value close to the EU median. Poland first introduced VAT in 1993 with a standard rate of 22 percent and a single 7 percent reduced rate. In 2011, these rates were increased to 23 percent and 8 percent, respectively, and the new 5 percent preferential rate was introduced. These increases were initially adopted as a temporary fiscal consolidation tool but were eventually kept on. Further adjustments to the list of goods subject to the reduced rates were carried out in 2018 and 2019.

The VAT gap in Poland decreased considerably between 2015 and 2019, reaching a level close to the EU average (2.12). Until recently, compliance to VAT taxes was low, generating important revenue losses for the state budget. Since 2016, the government has adopted a series of measures to contrast this phenomenon, increase VAT revenue, and reduce unfair competition form fraudulent business practices. As a first measure to reduce VAT tax evasion, in 2016 the government reduced the threshold for cash transaction between firms from €15,000 to Zl 15,000 Zl, or about €3,500. In 2018, penalties for VAT underestimation were introduced together with an optional Split Payment Mechanism (SPM) on business-to-business transactions. Under the SPM, a buyer's payment to the supplier is split in two: The net amount is paid on the supplier's basic account, while the VAT amount is deposited on a separate dedicated bank account. On November 1, 2019, the SPM became mandatory in sectors that were considered particularly prone to VAT evasion.43 Evidence on SPM policies in other countries suggests that they are effective at increasing compliance and reducing the VAT gap.⁴⁴ However, estimates also point to the potential increase in administrative and compliance costs for businesses, which depending on the specific design and scope of the SPM system could outweigh the benefits in terms of VAT gap reduction.⁴⁵ It will thus be important in the future to carry out a rigorous ex-post analysis of the net benefits of the Polish SPM system, accounting for its overall welfare and distributional effects. Two additional measures were adopted in 2019. Starting from May 1, the government put in place an Online Cash Registry System, which automatically records any registered transaction into a central database.



Figure 2.12 VAT Gap and VAT Revenue



Source: European Commission.

Finally, on September 1, a "white list" containing information on registered VAT taxpayers was introduced. Starting from January 1, 2020, taxpayers risk sanctions if they make payments to a supplier that is not registered in the "white list".

Tax data suggests that the recent measures taken by the authorities were successful at boosting VAT tax compliance. According to estimates from CASE (2020), as of 2015 Poland had one of the highest VAT gaps in the EU, measured as the difference between the VAT total tax liability (the potential VAT revenue) and the VAT that is actually being collected. The VAT tax gap equaled 24.7 percent of the total VAT tax liability, well above the EU average of 13 percent. Between 2015 and 2019, Poland experienced a strong reduction in the VAT tax gap, a decline that outpaced that of the aggregate EU level. The VAT gap declined to 20.4 percent in 2016, 14.3 percent in 2017, 9.9 percent in 2018, and 9.7 percent in 2019, just above the EU average of 9.6 percent. In parallel to this decrease in tax evasion, total VAT revenue relative to GDP saw a sharp increase, going from 7 percent in 2015 to 8 percent in 2019.

Efficiency and Equity

Efficiency and equity arguments play a role in determining the optimal use of VAT relative to direct taxation. It is often argued that a uniform VAT is in general more efficient than a direct taxation of production inputs in that it does not alter the relative cost of inputs and thus favors production efficiency. In practice, the actual degree of efficiency associated with a system of VAT rates will depend, among other things, on the design of preferential rates and exemptions and on the resulting compliance and administrative costs.⁴⁶ In terms of equity, conclusions on whether VAT is regressive largely depend on whether the analysis considers savings as deferred consumption, in which case it would attempt to account for the relative VAT burden over the lifecycle of different individuals. In the absence of data on lifetime income and consumption, researchers often suggest that measuring regressivity based on expenditures rather than income provides a more accurate, albeit imperfect, picture of the distributional consequences of VAT.⁴⁷ Using this approach, VAT systems are usually found to be either mildly regressive, neutral, or mildly progressive. These differences are often explained by the specific design of reduced VAT rates and VAT exemptions. Regarding the specific features of the Polish system, a recent analysis by Thomas (2020) on a subset of OECD countries finds the VAT system in Poland to be mildly progressive when assessed based on an expenditure-based methodology.⁴⁸ Nonetheless, even when VAT systems manage to reduce inequalities, their degree of progressivity is usually limited compared to standard progressive income tax systems. Disproportionately relying on indirect taxation, while possibly reducing tax induced distortions, would thus put a constraint on the level of redistribution that the tax system can effectively achieve. The current relatively high reliance on VAT and other indirect taxes to finance the Polish state budget can thus raise some concerns when it comes to the overall equity of the Polish tax system.

Tax on Civil Law Transactions (PCC)

Assets that are sold by a non-professional seller are subject to a 2 percent Tax on Civil Law Transactions. The tax paid by the buyer is based either on the purchasing price or on a higher value defined by an expert assessment. The PCC tax applies to the sale of real property other than non-agricultural land. Assets sold by entities carrying out businesses and non-agricultural land are instead subject to the standard VAT rate.

Tax on Financial Assets ("bank tax")

A levy on financial assets was introduced in 2016, with a monthly tax rate of 0.0366 percent on total assets above Zl 4 billion (Zl 2 billion for insurance companies). The new levy has since raised a series of concerns from European institutions, which creates worry that the tax could undermine the financial sector's competitiveness and stability.⁴⁹ The government should take the concerns raised by these institutions into account and reassess the desirability of the current "bank tax".

Excise and Other Taxes on Products

Indirect taxes in Poland include a set of excise taxes levied on alcoholic beverages, tobacco, energy products and electricity, cars, and gambling. In 2019, excises on energy products represented the biggest source of excise tax revenue (1.97 percent of GDP), followed by excises on tobacco (0.91 percent of GDP) and alcohol (0.54 percent of GDP). The most recent available data on excises on cars and gambling show that in 2018, they accounted for an additional 0.23 percent of GDP.

Excise duties on tobacco products have gradually increased over the last 30 years. According to WHO data, the total tax burden on tobacco products now represents around 79.8 percent of the average retail price of a cigarette pack, just below the EU average of 80.3 percent. Several other taxes on products have either been introduced or expanded in recent years. A new levy on novel tobacco products and liquids used in electronic cigarettes was introduced on July 1, 2020. A new sugar tax on beverages with added sugar/sweeteners, caffeine and taurine, as well as an additional levy on alcohol beverages sold in bottles of up to 300ml, will also be introduced on January 1, 2021. Energy excises were expanded to cover coal, lignite, and coke products in 2012 and have been gradually increased over the years for fuels.

Poland continues to grant coal and gas excise exemptions to energy-intensive industries subject to the European Emission Trading Scheme without an explicit requirement to meet strict efficiency standards, a practice that violates EU laws.⁵⁰ On November 27, 2019, the European Commission referred Poland to the European Court of Justice for failing to comply with EU directives. While exemptions on energy tax incentives tend to favor high-emissions activity, tax exemptions on cars and vehicles excises apply mostly to low-emissions hydrogen, hybrid, and electric cars.

Total revenue from excise duties as a share of GDP has declined since 2005 (Figure 2.13). The combined effects of the recent duty adjustments and of a decline in tobacco consumption has left the total tax







revenue from duties on tobacco products relatively stable over the past years (as a share of GDP. Excises on cars and gambling show a similar pattern, while the revenue from alcohol duties has been decreasing relative to GDP. Until 2005, this decline was more than compensated by an increase in the revenue from energy products and electricity, leading to an increase in the total tax revenue from excise duties. This trend reverted in 2005, driven by a mild decline in revenue from energy products and a continued declined in revenue from alcohol products, leading to an aggregate decline in the share of excise revenue relative to GDP.

Royalties and extraction fees are levied on extraction and exploration activities of minerals.

Since 2012, the Tax on the Extraction of Certain Minerals (TECM) has been levied on the extraction of copper and silver. Contrary to standard royalty-based taxes, the TECM is based on the gross value of the extracted minerals and is payable regardless of the profitability of the extractive operations. Since January 1, 2020, TECM has been expanded to cover the extraction of crude oil and natural gas. On the same date, the obligation to pay the special hydrocarbon tax (introduced with the 2014 Special Hydrocarbon Tax Act) took effect. The special hydrocarbon tax is levied on the profits from the extraction of hydrocarbons and can thus be viewed as a tax on the rent from natural resources.

Since 2016, businesses engaged in prospecting, exploring, and extracting hydrocarbons need to pay an environmental concession and usage fee as determined in the Geological and Mining Act. The concession fee is a one-off payment based on the size of the concession area that is to be explored. The usage fee is based on the volume of hydrocarbons extracted during the exploitation of the concession. The revenue from these environmental fees is used mostly to finance local governments, which receive 90 percent of the collected income, with the remaining 10 percent going to the National Fund for Environmental Protection and Water Management.

Environmental Taxes and Permits

Total revenue from environmental taxes in Poland, defined as those levied on any tax base with a proven negative effect on the environment, accounted for 2.64 percent of GDP in 2019, above the EU-27 average of 2.37 percent (Figure 2.14). The total revenue from these taxes has increased considerably between 1996 and 2005 and has since remained stable relative to GDP. As of 2019, most of the revenue from environmental taxes comes from taxes on energy products, which represent 87.5 percent of the total. Environmental taxes in Poland include excise duties on energy products, permit fees from the EU Emission Trading System





B. Environmental Taxes Revenue in Poiand

Source: Eurostat.

2013 2015

Box 2.2 The EU Emission Trading Scheme (ETS)

The EU Emission Trading Scheme (ETS) is a cap-andtrade system designed to incentivize the reduction in CO_2 emissions to meet the EU's climate goals. It sets legally binding caps on CO_2 emissions covering power and heat generating plants, energy intensive industry sectors, and aviation. Close to 48 percent of Poland's GHG emissions were covered by the EUwide Emissions Trading System (ETS), including most emissions from electricity generation and industry.

The ETS auctions helped generate sizeable revenues: Poland received 0.5 percent of GDP in revenues from auctioning allowances in 2019. The EU ETS Directive provides that at least 50 percent of auction revenues, including all revenues generated from allowances distributed for the purposes of solidarity and growth, should be used by Member States for climate- and energy-related purposes. For Poland, however, the revenues from auctions are not earmarked to specific projects. (European Commission 2017).

Between 2013 and 2020, Poland received free allocation of emission allowances to the power generation sector to support transformation of the energy sector. Poland was among eight countries that received free allowances. These allowances saved Poland an estimated 4.65 billion euros that was earmarked to finance modernization of the energy sector in accordance with the National Investment Plan across five areas: infrastructure retrofitting, infrastructure modernization, clean technologies, diversification of the energy mix, and diversification of supply sources.

(ETS) and a wide range of environmental concession and usage fees, which are levied primarily on energy and fuel production activities (Box 2.2).

While the tax revenue from energy taxes in Poland is high relative to the EU-27 level, estimates of the effective tax rate on energy are low compared to other EU countries (Figure 2.15). The implicit energy tax (amounting to 166.9), calculated as the ratio between energy tax revenue and final energy consumption (in tons of oil equivalent), is estimated to be low relative to the European average of 247.1. The large tax base on which energy taxes are levied contributes to the discrepancy between total revenue and implicit rate. According to the most recent available data from the European Environment Agency, in 2017 the Polish economy remained one of the most energy intensive in the EU, with an estimated intensity (calculated as the ratio between gross inland energy consumption and real GDP) 20 percent higher than the EU-28 level.



Figure 2.15 Implicit Tax Rate on Energy and Energy Intensity in Selected EU Countries

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Note: The implicit tax rate is computed as the ratio between energy tax revenue and final energy consumption (in tons of oil equivalent). Energy intensity is calculated as the ratio between gross inland energy consumption and real GDP.

Source: Eurostat, EEA.

The mining and electricity production sectors are subject to particularly low implicit tax rates on energy. The electricity sector recently received a transitional free allocation of EU ETS emission allowances and currently benefits from several exemptions from energy taxes on the fuels used to generate electricity, and on the electricity used in certain industrial processes (e.g. chemical reduction). As a result, energy tax revenue is raised primarily via excise duties on motor fuel and other fuel fees.

The low implicit taxation on energy contributes to the weak performance of the Polish tax system in pricing carbon emissions at efficient levels, according to OECD estimates (left panel in Figure 2.16). As of 2015, an estimated 85 percent of emissions was priced at less than ϵ 60 per ton of CO₂, a price equal to a mid-point estimate for the carbon cost in 2020. This was the second-worst performance among EU OECD countries. A similar pattern is seen when considering the carbon price gap at ϵ 60, calculated as the cumulated unpriced social cost of CO₂ emissions.⁵¹ These estimates were derived for 2015, prior to the introduction on January 1, 2016 of the coal and gas excise exemption for energy-intensive industries and thus they might be too optimistic. Overall, there seems to be ample margin to develop a more efficient taxation of carbon emissions in Poland (Box 2.3). Working in this direction is particularly crucial given the level of carbon intensity shown by the Polish economy (right panel in Figure 2.16). In 2018, emissions per capita were in fact 29 percent higher and emissions per euro of GDP were 193 percent higher than the EU-27 average.

The Polish tax system includes several energy tax expenditures schemes. While some of these policies are meant to support the transition toward greener energy sources, large resources remain devoted to reducing energy cost for households and energy-intensive sectors⁵². Several of these tax expenditure schemes effectively reduce the cost of carbon-intensive energy sources, thus contributing to the country's estimated high carbon price gap.⁵³ Tax schemes reducing the cost of fossil fuels and of other carbon-intensive energy sources are currently in place in the energy, agricultural, and transport sectors as well as being available directly to households. Overall, according to the European Commission (2020), in 2018 tax expenditure on energy — regardless of their environmental impact — amounted to 0.1 percent of GDP.





Notes: Blue columns show the share of emissions priced below $\rm { €60}$ per ton. Red columns show the carbon price gap at $\rm { €60}$ per ton as defined in OECD (2018).

Sources: OECD, EEA.

Box 2.3 Simulating the Effect of Carbon Taxes

Carbon taxes—and carbon pricing in general—can be effective in promoting a green transition by efficiently incentivizing a decarbonization of the economy. The clear economic rationale for carbon pricing as an instrument to internalize environmental externalities makes it a prominent green fiscal instrument. At the same time, while a carbon tax is likely to reduce carbon emissions, its impact on total tax revenue is less clear. By reducing the demand for fossil fuels, thus reducing the revenue from the taxation of these products, a carbon tax can have a negative long-run effect on the state budget.

As part of the present review, a dynamic CGE model of the Polish economy was used to simulate the impact of an increase in carbon taxes over the next 10 years. The model was used to simulate two scenarios (Figure B2.3.1). The first—or baseline—is consistent with the current commitments of the Polish government as outlined in Energy Policy for Poland (PEP2040) and sees an increase in the tax on carbon in the power, paper, chemical and metallurgical sectors from ZI 74.76/tCO₂ emission in 2021 to ZI 126/tCO₂ by 2030. The second—or high tax scenario—assumes a more ambitious climate policy and is aligned with the high EU prices scenario considered in PEP2040. Under this alternative climate policy, a carbon tax is applied to all sectors of the economy and its level is increased from ZI 113.4/tCO₂ emission in 2021 to ZI 227/tCO₂ by 2030.

Relative to the baseline, a high carbon tax scenario sees a stronger decrease in carbon-intensive energy sources and a higher increase in carbon tax revenue. The increase in revenue from the carbon tax is only partially offset by a drop in revenue from excises and VAT caused by a reduction in the consumption of carbon-intensive products and services. Under a generalized high carbon tax, the simulated carbon tax revenue relative to GDP in 2030 is 0.93 percentage points higher than in the baseline scenario, while the revenue from excise taxes and VAT is 0.13 and 0.08 percentage points lower, respectively. The higher carbon tax is also effective at reducing the use of carbon-intensive energy sources. Over a 10-year horizon, the model under the high carbon tax scenario projects an additional drop in the demand for electricity and gas, coal, and coke and refined petroleum of 5, 12.5, and 7.1 percentage points, respectively, relative to the baseline (Figure B2.3.1).

Figure B2.3.1 Simulated Effect of an Increase in Carbon Taxes Under Alternative Scenarios



As the Polish economy remains highly energyand carbon-intensive, the government should develop plans for a significant green transition. Phasing out state support for polluting industries in favor of the green economy can benefit the Polish economy in the medium and long run. In the shortterm, it might nonetheless cause disruptions and force workers to relocate between sectors. The cost of these adjustments might disproportionately fall on those low-skilled workers who currently work in polluting industries and in regions where polluting sectors represent a major source of jobs, requiring the government to provide adequate support to limit the social costs of this transition. While concerns over the social costs of the green transition are understandable, it is recommended that the government develop a coherent set of measures in this area. The structural transformations required to cope with the ongoing climate crisis and the current push for a Green Deal at the EU level leave no room to further postpone a major scale up of green policies in Poland. Deferring plans for a green transition would risk leaving Poland lagging other countries in sectors that will be increasingly relevant in future economies.⁵⁴ In general, the medium- and long-term social and environmental costs of deferring actions in this area are likely to far outweigh the initial adjustment costs associated with a green transition.

Trade Taxes

With Poland being part of the European customs union, tariffs and custom duties are set at the European level and are common among the Union's members. In 2018, import tariffs and custom duties collected in Poland equaled 0.4 percent of GDP. 80 percent of the duties collected are transferred to the EU budget, while the remaining 20 percent contributes to the Polish central state budget, officially to cover collection costs. As of 2018, the weighted average tariff rate in the EU was equal to 3 percent, a level below the estimated world average of 4.17 percent.

Policy Recommendations

The government should consider reverting its decision on the 2016 coal and gas excise exemptions. The tax revenue recovered from the abolition of these exemptions could be used to finance tax credits for energy efficiency and clean energy production. This reallocation of resources would help transition the Polish economy away from carbon-intensive energy sources and toward more dynamic sectors and activities with higher future growth potential. This measure could be part of a broader package promoting a green transition of the economy, while supporting workers and households in industries and regions that will be most affected by this transition.

Subnational Revenue and Intergovernmental Transfers

The 2003 Act on Local Government Revenue establishes that local government can benefit from three sources of revenue: own revenue, which include local taxes, fees and charges; shared taxes and revenue from assets; general subsidies from the central government budget; and targeted grants used to perform central government functions delegated to local governments. Considering these three sources, the revenue available to local governments amounted to 14.1 percent of GDP in 2019 relative to an EU-27 average of 10.9 percent. In 2018, local governments' own resources represented 41 percent of their total revenue, compared to the EU average of 53 percent, indicating a relatively low autonomy in local revenue, with the remaining 59 percent coming from central government transfers.55

Property Taxes

Taxes on immovable properties are levied at the municipal level and in 2019 amounted to 1.7 percent of GDP and around 29 percent of local governments' own resources. Tax rates are set by the local municipal council, with maximum applicable rates defined at the national level, and differ according to the type of immovable property being taxed. Property taxes are levied on lands, buildings, and construction structures. The tax base is defined by either the surface or value of the property. Construction structures are taxed based on the initial market value of construction, while lands and buildings are taxes based on their surface. The definition of the tax base on buildings thus differs from those adopted in several other EU countries where property taxes are levied based on a building's value.

Buildings are taxed based on their surface, with different rates applying depending on the activities they are used for. Residential buildings are usually taxed at the lower rate (maximum rate of Zl 0.75 /m²), while commercial buildings are taxed at the highest rate (maximum rate of Zl 23.13 /m²). Numerous tax exemptions are granted to properties owned or used by socially relevant organizations, such as universities and nursery schools. The implicit recurrent tax rate on property was estimated at 1.09 percent in 2017 (Barrios et al. (2019)), a level above those applied in most other EU countries (Figure 2.17).





Source: Barrios et al. (2019).

Separate taxes are levied on agricultural land (agricultural tax) and on the ownership or regular use of forests (forestry tax), which are exempted from real estate taxation. Agricultural and forestry taxes are calculated on standardized measures of the output value of these properties. In the case of agricultural land, the tax base is computed using a standardized hectare unit, which is based on the actual surface, adjusted for different classes of arable lands, local economic conditions, and local climate. Tax rates applicable to a square meter of agricultural or forest land are considerably lower than those applied on a square meter of land subject to the real estate tax.

Other Local Taxes, Fees and Charges

Inheritance taxes are levied by local governments.

Individuals are required to declare to the tax authority the amount of donations they received above a tax-exemption limit, which for close family members is currently set at Zl 9,637. Any donations above the tax-exemption threshold are taxed at rates that vary between 3 percent and 12 percent, depending on the total amount received and the relationship between the donor and the receiver of the donation. **Several other taxes and fees contribute to the revenue of local governments.** These include a tax on means of transportations weighing more than 3.5 tons. The tax is applicable in every commune in the country and tax rates are set by the municipal council. Other taxes can be levied at the discretion of the local council. These include advertising fees, local market fees, dog fees and fees collected on people visiting the local jurisdiction for tourist, leisure, or training purposes. 90 percent of the environmental concession and usage fees goes to the local authorities that have jurisdiction over the environmental resource being exploited. 60 percent of the total fee goes to the commune, 15 percent to the county, and 15 percent to the province.

Shared Taxation

Local governments receive a share of the of the PIT and CIT levied on natural and legal persons residing or operating in their jurisdiction. The law states that 39.34 percent of PIT revenue should go to the municipal government, 10.25 percent to counties, and 1.60 percent to regions. Similarly, 6.71 percent of CIT revenue should go to the municipal government, 1.4 percent to counties, and 14.75 percent to regions. Local revenue from shared taxation represented 3.31 percent of GDP in 2018, equivalent to 74 percent of the total subnational government's own revenue. While these shared taxes are officially considered to be a source of local revenue, the local authority has no power to determine their amount, thus limiting the fiscal autonomy of local governments. Besides limiting local fiscal autonomy, the high reliance of local governments on CIT — a highly volatile source of tax revenue — makes local budgets highly dependent on local economic conditions, increasing the uncertainty surrounding local budget planning.

Analysis of Tax Expenditures

Tax expenditures (TEs) in Poland mobilize large public resources and are provided primarily via reduced VAT rates and CIT and PIT exemption, credits, and allowances (Figure 2.18). The most recent detailed data available from the Polish Ministry of Finance shows that in 2015, the Polish tax system included 528 TE schemes, accounting for total foregone tax revenue equivalent to 5.04 percent of GDP. VAT TEs accounted for the largest share of tax expenditures (2.56 percent of GDP) and primarily took the form of reduced VAT rates on specific goods and services. PIT and CIT TEs amounted to another 1.18 percent and 0.82 percent of GDP, respectively. Both PIT and CIT TEs were implemented primarily via tax exemptions and tax credits or allowances, with an additional 17 percent of total PIT TEs provided via reduced PIT rates.

The declared purpose of TEs is primarily to support households, promote economic growth and support specific priority sectors of the economy. As of 2015, around 42.5 percent of TE resources were meant to help households in need of social and economic support. TE policies pursued this goal primarily via the use of favorable PIT treatments and reduced VAT on social goods and services. In 2015, another 0.93 percent of GDP of TE resources served to promote economic growth. Most of these resources were provided via CIT TEs, with TEs amounting to around 0.27 percent of GDP that were meant to attract or stimulate investments. A large share of TE resources was used with the explicit purpose of supporting a specific sector of activities that were deemed as a priority by the government. Total TE support to priority sectors accounted for 1.43 percent of GDP in 2015 and was provided primarily via reduced VAT rates applied to the goods and services produced by the priority sector or activity.

As pointed out in the diagnostics provided in the rest of this chapter, some of the TE schemes currently in place raise equity and efficiency concerns. There seems thus to be room to rationalize the use of TEs in the Polish tax system and recover some of the large resources they currently mobilize. Some possible interventions in this area have been outlined in this chapter. In general, a systematic review and a rigorous evaluation of the current TE schemes could provide the groundwork for future improvements of the Polish tax system and could produce considerable gains for the Polish economy.

Figure 2.18 Analysis of Tax Expenditures (2015)







C. Tax Expenditures by Objective





POLICY RECOMMENDATIONS

PIT and SCC

Increasing Progressivity of the Standard PIT Scheme

Given the limited progressivity of the current system, the government should consider reallocating some of the tax burden away from low-income individuals. This can be done by intervening on both the PIT and SCC schedules. Increasing the size of tax-deductible costs; increasing the basic tax allowance and redesigning its phaseout; and revising the stepwise system of marginal tax rates are viable options to reorganize the current PIT system. The analysis in Bachas et al. (2020) provides a detailed assessment of these alternatives and suggests that redesigning the tax allowance might be one of the most effective ways to obtain a more progressive PIT in Poland. More specifically, the report proposes to increase the size of the basic tax allowance and reduce its phaseout rate.⁵⁶

Given the relatively low contribution of PIT to the total tax wedge, a meaningful improvement in progressivity would also require an adjustment of the current SSCs schedule and a reduction of SSC on low incomes. The government could consider achieving this by introducing a social insurance allowance that reduces social insurance contributions on low incomes at constant expected replacement rates. The equilibrium of the pension system could be guaranteed by covering the costs of this policy with a transfer from the contributions paid on high-incomes.⁵⁷ In practice, these additional resources could come from:

- an increase in the threshold under which incomes are exempt from pension contributions (currently set at Zl 157,770);
- a harmonization of the social insurance contributions system applicable to salaried employees, self-employed and atypical labor contracts (see below); and

a progressive solidarity transfer on the contributions paid on high-incomes.

Increasing the progressivity of the tax wedge and decreasing the tax burden on low incomes seem particularly relevant considering the high degree of labor informality and relatively low labor force participation in Poland. The issue of informality is usually more salient for low-skilled workers, who tend to work in low-paying jobs at higher risk of informality.⁵⁸ At the same time, lowskilled workers are usually found to have higher elasticities of labor supply.⁵⁹ Reallocating the tax burden away from low incomes can thus have positive effects on both these dimensions, favoring the participation of low-skilled workers in the formal labor market. Increasing participation in the formal economy would at the same time increase the total PIT tax base and would favor a more generalized reduction in PIT.

The issues of informality and low labor force participation remain important in Poland. While estimates of the size of labor informality vary depending on the methodological approach being used, Poland is usually found to have the largest informal economy among EU countries. According to estimates from the European Commission (2017), in 2013 Poland had the highest rate of undeclared labor in the EU. The report estimated that 27.3 percent of the gross value added in the private sector was being produced by undeclared labor, compared to an EU-28 weighted average of 14.3 percent and to the 16.9 percent and 21.3 percent in the Czech Republic and in Estonia, respectively. Similarly, ILO (2018) estimates for 2016 show that 20.1 percent (15.9 percent outside agriculture) of jobs were informal, compared to an EU-27 average of 16.8 percent (14.6 percent outside agriculture).⁶⁰ Besides reducing labor informality, increasing labor force participation remains an important goal for Poland considering its relatively low participation rate compared to the EU-27 average and to many of its peers (Figure 2.1). As of 2019, the share of inactive population in Poland stood at 29.2 percent, 2.5 percentage points above the EU-27 average and 6.1 and 8.1 percentage points above the level in the Czech Republic and Estonia, respectively.

Harmonize SSC and Health Contributions Treatments

It is recommended that the government consider harmonizing the social security and health contribution treatments for standard labor contracts, atypical contracts, and self-employment. A recent analysis jointly carried out by the World Bank, the European Commission, and the Polish Ministry of Finance (World Bank 2020) assessed the impact of harmonizing the SSC system across typical and atypical contracts. The effectiveness of this policy change might, however, come at the cost of an increase in income inequality, as it would impose a higher tax wedge on civil law contracts, which in turn are often used in low paying jobs.⁶¹ To mitigate its negative distributional effects, the harmonization would need be accompanied by the introduction of an SSC allowance on low incomes. The introduction of the allowance would help offset the effect of the harmonization on the cost of low-wage atypical contracts and at the same time reduce the labor cost of standard contracts, making them more advantageous for employers. The proposed SSC allowance would also help increase the overall equity and progressivity of the Polish PIT system.

PIT rate on self-employed and capital income

The government should consider subjecting the income earned from self-employed workers to the general progressive scheme, thus removing the 19 percent flat rate and lump-sum options. Two main arguments support this recommendation. First, the current 19 percent flat rate reduces the degree of progressivity in the system, reducing the average tax rate on high-income self-employed earners. Second, a flat 19 percent rate on self-employment is advantageous relative to the double taxation on profits and capital income for shareholders of incorporated businesses. This lower tax rate on unincorporated businesses increases the return on investment on small firms, but it also reduces their incentives to incorporate. While this favorable treatment might push small businesses to grow marginally bigger, it is also likely to have

negative consequences on their probability to grow beyond what can be feasibly achieved under an unincorporated organizational form with negative effects on their long-term growth prospects.⁶² The structure of the current system is thus likely to at least mitigate and possibly revert the negative effect on business growth of increasing PIT on the high-income self-employed. The fact that under the current tax law, self-employed workers can already opt for paying PIT under the progressive system, an option that is advantageous for low/medium income self-employed (earning less than 100,000 Zl), suggests that the recommended reform would raise taxes primarily on high-income self-employed currently opting for the 19 percent flat rate or lump-sum options. Accordingly, the reform is likely to both increase PIT progressivity and raise additional tax revenue. These additional resources could then be used to finance part of the proposed increase in the basic PIT allowance outlined in Bachas et al. (2020).

The government could also consider going a step further and subject both net capital and labor income to the general progressive scheme, eliminating the separate taxation of capital income. Under this alternative, capital income and labor income — both from employment and self-employment — would be taxed under the same progressive scheme. This harmonized system should be accompanied by a fixed dividend tax credit compensating for the effects of the double taxation on the profits of incorporated businesses. Without this compensating tax credit, double taxation would increase the effective tax rate on profits earned from incorporated businesses above the tax rate on other sources of income. Depending on the design of the dividend tax credit, this system could achieve tax neutrality between incorporated and unincorporated businesses, thus reducing distortions in the organizational choices of businesses. Under the proposed comprehensive scheme, net capital gains and losses should be calculated separately before adding them to the other sources of income. Capital losses should be deducted only against capital gains and any resulting net capital losses could be carried forward to offset future taxable capital gains. The net capital gains obtained from this separate calculation would then be added to labor income and taxed under the same regime.

A comprehensive income tax scheme would increase both the progressivity and horizontal equity of the PIT system, reducing the number of preferential treatments available to high-income earners and ensuring that taxpayers earning similar incomes pay similar average tax rates.⁶³ The capital taxation literature has long debated the optimality of a comprehensive PIT scheme, where labor and capital income are taxed under the same system. A recent contribution in Saez, Stancheva (2018) summarizes the main theoretical results on the subject and shows that the desirability of a comprehensive PIT scheme depends crucially on the importance of equity concerns in the design of the PIT system, as well as on taxpayers' ability to shift their income from labor to capital income bases. First, as equity concerns become more important, the optimal system will tend towards a comprehensive PIT scheme, even when this is less efficient than a separate taxation of labor and capital. Second, even in the absence of equity concerns, a comprehensive scheme can be optimal when taxpayers can easily shift between income sources. By altering the relative cost of earning income from different income bases, a separate taxation of capital and labor can distort taxpayers' optimal choices. This is notably the case for incorporated and unincorporated (pass-through) businesses, where, as already mentioned above, the differential tax treatments can induce the owner to inefficiently alter the organizational structure of the activity. ⁶⁴

Joint PIT Scheme

The government should consider removing the optional joint PIT declaration scheme. Poland currently gives couples the option to jointly declare annual income. A couple opting for the joint declaration is taxed under the progressive scheme on the total income of its two members, doubling the level of the marginal rate threshold and basic allowance. In a progressive PIT system, jointly declaring income introduces some degree of what the tax literature defines as positive tax jointness: The marginal tax rate on an individual's income increases with the income of her or his partner.

Positive tax jointness raises concerns in terms of both efficiency and equity. From an efficiency perspective, optimal taxation theory usually finds positive jointness to be inefficient.⁶⁵ The intuition

is that, if secondary earners tend to have a higher elasticity of labor supply, they should be taxed at lower marginal rates to maximize aggregate labor supply.⁶⁶ Compared to an individual PIT system, for a same total household income, a joint system imposes a higher marginal tax rate on the secondary earner and a lower tax rate on the primary earner.⁶⁷ As it imposes a higher (lower) marginal tax rate on individuals with higher (lower) labor supply elasticity, positive jointness is thus likely to reduce aggregate employment. Supporters of joint taxation usually claim that this system guarantees a more equitable distribution of the tax burden across households. This argument is based on a 'unitary' view of the household, where household members perfectly share their income and jointly decide how to spend it. Accordingly, horizontal equity would require households earning the same income to pay the same level of taxes. This view however ignores the inequities that arise within households and the perverse effects that these can have on gender inequality and gender gaps in the labor market. As they disincentivize the participation of secondary earners to the labor market and reduce their labor supply, joint systems tend in fact to magnify initial differences within the household and further polarize the relative bargaining power within couples.

These issues are particularly sensitive considering that women are disproportionately represented among secondary earners. The joint PIT scheme is likely to sustain the large gender participation gap currently observed in Poland, which is in turn one of the main drivers of the comparatively low labor force participation in the country. As of 2019, the gap in gender participation between men and women stood at 13.8 percentage points, 2.9 percentage points above the EU-27 average and 7.6 percentage points above the level in Estonia.

As noted in Bachas et al. (2020), the optional joint system in Poland also represents a simple way for high-income earners to cut their average tax rate, reducing the number of taxpayers effectively subject to the 32 percent marginal PIT rate, and thus limiting the effective progressivity of the Polish PIT system. Considering these efficiency and equity arguments, it is recommended that the government considers removing the optional joint declaration scheme.

Capital Income from Foreign Sources

Poland should introduce passive foreign investment company (PFIC) rules to tax capital income from offshore funds on a current basis and require residents to report the value of their foreign portfolio of assets. International tax evasion and avoidance of capital income taxes represent a major drain of public resources and undermine the progressivity and fairness of tax systems. As mentioned above, the tax treatment of capital income from offshore funds in the current Polish tax system favors tax avoidance by allowing residents to legally avoid paying capital income taxes by investing their savings in an offshore fund. Countries may counter this tax avoidance strategy by introducing rules - so-called PFIC rules — that would tax resident individuals on a current basis, taxing their pro rata share of interest, dividends, and capital gains realized by offshore funds in which they invest. Poland should consider introducing a similar set of rules in its tax code. The authorities should also consider requiring residents to report the total value of their foreign portfolio of assets. This new reporting requirement would provide tax authorities with insights into the scale of offshore tax avoidance on capital income from residents using offshore portfolio investment vehicles. Finally, to counteract international tax evasion of capital income taxes, Poland's tax administration, in coordination with EU authorities and other member countries, should step up its efforts to pursue information-exchange agreements with other countries.

Additional Recommendations.

The government should reconsider the sharp age eligibility threshold for the PIT exemption available to taxpayers up to 26 years old. The current threshold induces a sharp increase in the labor cost at 26 years of age and can distort labor supply and demand choices. A system that increases the PIT liability more smoothly with age would reduce these distortions while providing support to youth employment. A formal assessment of the impact of the current system on the employability of individuals around the 26 years old threshold could help inform policymakers on the possible distortionary effects the current policy. The government should consider having one single entity collecting both PIT and SSC. Currently two separate entities collect PIT and SSC, which in the case of labor income are both collected as a deduction from wages.⁶⁸ To increase collection efficiency and reduce collection cost, the government could consider having only one agency collecting all deductions from wages.

CIT

In designing a CIT system that sustains firms' growth and job creation, the authorities could consider refocusing their system of tax incentives in favor of greater direct support to investments. The government could consider the possible negative and unintended effects that the current preferential CIT treatment for small businesses can have on their incentives to grow big. At constant tax revenue, the preferential rate can distort firms' growth choices, reducing the incentives to invest in business growth (above the preferential cutoff size) and to incorporate business activities, and can negatively affect the relative gains from starting-up businesses with high growth potential. If the government's objective is to promote job creation through business growth, it could consider refocusing its system of CIT tax preferences to support businesses with higher growth potential, especially at an early stage in their activity. While a system of age-based incentives can be problematic and hard to efficiently design, devoting more resources to policies supporting business growth (e.g., via accelerated depreciation schemes) can be a step in this direction.69

If the government is committed to a size-based CIT, it should consider less distortionary alternatives to the current system of tax preferences. An alternative scheme based either on a profit eligibility threshold and two marginal tax rates above and below the cutoff, or on a tapered tax rate around the threshold, could be a more efficient way to implement size-based CIT tax preferences. This alternative would eliminate the current discontinuity in the average tax rate and thus mitigate some of the distortions associated with the present CIT schedule. The government should consider replacing the "Estonian CIT" scheme with a permanent accelerated depreciation of capital costs. If the introduction of the "Estonian CIT" is aimed at encouraging investment in productive capital, the government should consider alternative approaches that can achieve this objective more efficiently and at a lower cost for the public budget. Replacing the "Estonian CIT" with a permanent accelerated depreciation (e.g., full depreciation in the first year of investment) of capital costs is a more efficient alternative that the government could consider in the future.

Indirect Taxes

The government should consider reversing its decision on the 2016 coal and gas excise exemptions. The tax revenue recovered from the abolition of these exemptions could be used to finance tax credits for energy efficiency and clean energy production. This reallocation of resources would help transition the Polish economy away from carbon-intensive energy sources and toward more dynamic sectors and activities with higher future growth potential. This measure could be part of a broader package promoting a green transition of the economy, while supporting workers and households in industries and regions that will be most affected by this transition.

Subnational Taxation

When planning reforms of PIT and CIT, the government needs to consider their effect on the revenue of local governments. Local governments receive 51.19 percent and 22.86 percent of the total PIT and CIT revenue collected in their jurisdiction, respectively, and these resources represent an important share of their budget. Changes in PIT and CIT rates and tax bases therefore need to be offset with targeted inter-governmental transfers or other compensatory measures to support local governments' budgets.

The government should consider reforming tax sharing to reduce the volatility of local budgets. As proposed in World Bank (2018), the government should consider measures that could smooth out the volatility in the CIT revenue going to local governments. In particular, the report proposes to calculate around half of the local CIT share as a moving average of local CIT collection over a window of five years⁷⁰. In the longer term, the government could consider a shift from a shared taxation of CIT to a shared taxation of VAT, a less volatile source of tax revenue.

The government could consider increasing the revenue autonomy of local governments. As pointed out in *World Bank* (2018), this could be done in several ways. First, the government could give local governments the possibility to adjust the local PIT tax rates to meet their budget needs via a "piggyback" PIT tax. Second, the government could reform the property tax, reforming the assessment methodology to better reflect the actual value of land and real estate properties. Finally, the government could allow local governments to introduce a local business tax.

CONCLUSIONS

This review suggests that the Polish tax system shows a limited degree of progressivity. The tax system generates a relatively low revenue compared to the EU average, while disproportionately relying on revenue from indirect taxes. Consumption is thus subject to a relative high taxation, while CIT and PIT cover a comparatively small share of the state's budget. On the aggregate, this low level of direct taxation, together with SSC contributions that are in line with the EU average, results in a relatively low average tax wedge on labor income. However, the current PIT and SSC design fails to produce any notable level of income tax progressivity, making the Polish PIT/ SSC system one of the least progressive in Europe and imposing a relatively high tax wedge on low incomes. The limited degree of progressivity in the tax system is exacerbated by a comparatively high tax on consumption. While the Polish government introduced two reduced VAT rates on basic products, VAT is usually found to be at best only mildly progressive. The low degree of progressivity in the PIT system and the high share of revenue collected from VAT thus result in a system that imposes a high tax burden on low-income households. It is thus important that the government considers reforming its the current tax system to increase its progressivity and equity.

The Polish tax system also includes several special treatments and exemptions granted to specific taxpayers and taxed items. Besides their effect on the state budget, some of these preferential treatments raise efficiency and equity concerns, often disproportionately benefiting high-income earners. A systematic revision of these special treatments aimed at improving their efficiency and equity could provide important gains for the economy and free up additional resources. These could then be used to finance programs that can more effectively support the most vulnerable segments of the population and stimulate firms' growth and job creation.

Personal Income Taxes and SSC						
2020	New rules were introduced reducing the amount of SSC for self-employed earning less than ZI 120,000.*					
2019	Introduction of a solidarity levy of 4 percent on income above ZI 1 million.					
	Introduction of a tax exemption for labor income below ZI 85,558 earned by individuals up to 26 years old under a labor contract.					
	Reduction of the lowest PIT rate from 18 percent to 17 percent.					
2017	Progressive tax allowance replaced the universal flat allowance previously in place.					
2009	System based on three income brackets is replaced by two income brackets taxed at 18 percent and 32 percent.					
2004	Introduction of the optional flat 19 percent rate regime for self-employment income.					
Corporate Income Tax						
2021	Introduction of the so-called "Estonian" special CIT scheme.					
2019	The preferential CIT rate for small businesses is reduced from 15 percent to 9 percent.					
	Introduction of an exit tax on the unrealized profits in relation to the moving of assets to another country.					
2018	Introduction of a minimum taxation on commercial property (malls or office buildings). The tax is part of the corporate income tax.					
2017	A preferential CIT rate of 15 percent is introduced for small businesses.					
2004	The CIT rate is reduced from 27 percent to 19 percent.					
	VAT					
2020	Revision of the list of goods subject to the reduced VAT rates.					
	Introduction of a list of VAT registered taxpayers ("White list").					
2019	Introduction of the Online Cash Registry.					
2020	Mandatory Split Payment Mechanism is made mandatory for sectors considered particularly vulnerable to VAT evasion.					
2018	The VAT rate on a set of products is revised from 8 percent to 23 percent.					
	Optional Split Payment Mechanism is introduced.					
2017	Introduction of penalties for the underestimation of VAT liability.					
2016	Threshold for business-to-business cash transaction is reduced from €15,000 to ZI 15,000 (around €3,500).					
2011	Standard VAT rate is increased from 22 percent to 23 percent and reduced rate is increased from 7 percent to 8 percent.					
	A third reduced VAT rate of 5 percent is introduced for a list of specific items.					
1993	The VAT tax is introduced.					

Table 2.3 Main Recent Tax Reforms

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Other Indirect Taxes: on products and production				
2021	Introduction of a new tax on beverages with added sugar/sweeteners, caffeine, or taurine. Introduction of an additional levy on alcohol beverages sold in bottles of up to 300ml.			
2020	Excise duty on novel tobacco products and liquids used in electronic cigarettes is introduced.			
	The special hydrocarbons tax levied on profits derived from the extraction of gas and oil is introduced. The tax on the extraction of minerals is extended to gas and oil.			
2019	Reduction of the rate on copper and silver extraction.			
2016	The environmental usage fee on businesses engaging in prospecting, exploring, and extracting hydrocarbons is introduced.			
2012	Excise energy tax become applicable to coal, lignite, and coke.			
	A new tax on the extraction of silver and copper is introduced.			
Property and Other Local Taxes				
2018	Introduction of a minimum taxation on commercial property (malls or office buildings). Part of the corporate income tax.			
2016	The environmental usage fee on businesses engaging in prospecting, exploring, and extracting hydrocarbons is introduced.			

Note: As of February 2020, SSC due by self-employed earning less than ZI 120 000 may be calculated from 50 percent of self-employed income using standard rates that apply to employed workers. If this method is used, the SSC liability cannot be lower than the amount of SSC calculated from 30 percent of minimum wage. If the SSC liability is higher than the SSC calculated from 60 percent of average wage (standard SSC value for self-employed), then standard SSC rules apply.

Notes

- 1. See Table 2.3 for a list of the main tax reform recently implemented in Poland.
- 2. On top of tax revenue, as of 2019 the Polish state budget benefited from additional non-tax resources in the form of property income, market output, output for own final use, and other transfers received by the government for a total of 5.2 percent of GDP and an additional 0.85 percent in non-mandatory SSC. These sources of non-tax revenue consist of the following ESA 2010 categories: P.11, P.12, P.131, D.39r, D4r, D.7r, D.92r, D.99r.
- 3. There are currently 2478 municipalities, 314 counties and 16 regions in Poland.
- 4. Estimating the size of the informal economy is not an easy task. Alternative methodologies and different definitions of informality exist, and the estimated size of the informal sector will depend on the specific definition and methodology adopted. What most studies on informality in the EU seem to agree upon is that Poland has one of the biggest informal/shadow economies among EU member states. For additional estimates of the size of the shadow economy in EU countries see a recent analysis by the IMF in Kelmanson et al. (2019).
- 5. See ILO (2018) for a discussion of the methodology and definition of informality underlying these es-

timates. The ILO estimate for the share of informal employment is in line with estimates in Williams et al. (2017), which find that in 2013 20.8 percent of total labor inputs in the private sector in Poland was undeclared.

- 6. See estimates in PIE (2020) and CASE (2020).
- 7. Tørsløv et al. (2020) estimate that in 2017 because of profit shifting Poland lost tax revenue equivalent to 8 percent of the total CIT it collected, with around 90 percent of these profits being shifted towards other EU countries. The European Commission (2019) estimated that in 2016 Poland lost €1.35 billion in tax revenue due to tax evasion from international wealth offshoring, defined as the underreporting of holdings held by the residents of a given country in other tax jurisdictions.
- 8. Some additional conditions need to be met to be eligible to the joint taxation regime. For example, none of the individuals in the couple should conduct business activities taxed under a scheme different than the general progressive scheme.
- Civil law contracts include contracts of results and commission contracts. Deductible costs cannot be deducted from the income earned from pensions.

- 10. This cost deduction does not apply to civil law contracts. In these cases, the deduction is equal to either the actual costs incurred in their activity or 20 percent of their contract value (increased to 50 percent if the contract involve the transfer of copyright material). Additional special provisions apply to commuting workers with multiple employment relationships.
- 11. This deduction does not apply to income earned under a Contract of Result or to self-employed workers.
- 12. See the chapter on fiscal expenditures in this report for more details.
- Individuals opting for the flat rate system cannot deduct any relevant expense from their taxable rental income.
- 14. As of February 2020, SSC due by self-employed earning less than Zl 120,000 may be calculated from 50 percent of self-employed income using standard rates that apply to employed workers. If this method is used, the SSC liability cannot be lower than the amount of SSC calculated from 30 percent of minimum wage. If the SSC liability is higher than the SSC calculated from 60 percent of average wage (standard SSC value for self-employed), then standard SSC rules apply.
- 15. This provision applies only to a person that stipulates multiple contracts at the same time. If the person works under a single commission contract the standard social contributions applies.
- 16. Including social security contributions decreases the differential in tax wedges from 1.3 to 1.1, due to the regressive nature of SSCs. The very low differential wedge from PIT is a direct consequence of the very fast phase-out of the tax allowance at low-income levels. Consequently, most of the progressivity in the Polish PIT schedule is concentrated between Zl o and Zl 13,000 with a very slow increase in the average tax rate thereafter. A sizeable wedge differential would thus be evident only if considering workers earning well below 67 percent of the average wage and corresponding to low percentiles of the income distribution.
- Civil law contracts include commission contracts and contracts of results that are often used as alternatives to temporary labor contracts. See World Bank (2020).
- See for example Garibaldi, Taddei (2013) for a discussion of labor market duality in Italy and its implications on the labor market conditions of the youth.
- See for example Lopes (2020) for evidence on the negative effect of job insecurity on fertility decisions.
- 20. A limit of 5 million Zl or 50 percent of losses applies to the amount deductible in each year.
- 21. See ZEW (2019) for more details on the methodology used to derive these estimates.
- 22. The "Estonian" option is so-called because its design was based on the default CIT regime in Estonia. While the new optional scheme in Poland and the default scheme in Estonia share a common rationale, the two systems differ in several important ways.

- 23. Profits taxed under the new scheme are subject to special rates of 25 percent (15 percent for small firms). Specific deductions and simplified reporting rules apply under the new scheme, balancing these higher rates. Some deductions available to firms under the standard scheme, such as the IP box, do not apply to CIT taxpayers under the new scheme.
- 24. The fact that the new optional scheme is available only to businesses that operate under certain ownership structures, introduces yet another distortion, possibly altering firms' choices of their optimal corporate structure.
- 25. The complexity of tax legislations and the number of eligibility criteria might be particularly discouraging for small businesses and could thus create additional distortions. Understanding a new legislation and re-optimizing a business plan accordingly represents a fixed cost that small businesses might be more reluctant to pay given the relatively limited (compared to bigger firms) benefits that they could enjoy.
- 26. These are defined as: employees' wages and social contributions; purchase of commodities and raw materials; expertise, research, and opinions bought from scientific units; payments for use of research equipment; amortization of intangible assets and fixed assets, excluding passenger cars, buildings, and constructions; costs of obtaining IP protection.
- 27. Firms with revenue larger than Zl 2.5 million can apply for RDC status.
- 28. The definition of an SME follows the one used by the European Commission. A firm is thus defined as an SME if it has less than 250 workers and has either an annual turnover not exceeding €50 million or an annual total balance sheet not exceeding €43 million.
- 29. Several authors have analyzed the effect of R&D tax credits on innovation in eligible firms. Research on the topics has considered both the effect of R&D credits on the inputs of the R&D process (e.g. R&D expenditures) and on (proxies of) the output of the R&D process (e.g. number of patent applications). Recent examples include evidence on input effectiveness in the UK (Guceri, Liu (2019)) and in several EU countries (Appelt et al. (2020)) and evidence on the number of new patent applications in the UK (Dechezleprêtre et al. (2020)). See Dechezleprêtre et al. (2020) for evidence on the positive spillover effects of an expansion of R&D credits in the UK on firms that perform similar research activities.
- 30. See Dechezleprêtre et al. (2020) for evidence on the positive spillover effects of an expansion of R&D credits in the UK on firms that perform similar research activities.
- 31. Davies et al. (2020) use data from European Patent Office and provide evidence of a positive effect of IP boxes on both the number of new patent applications and on the average probability of success of patent applications, which the authors interpret as a proxy of patents' qual-

ity. The authors also suggest that to limit the risk of big firms simply relocating IP rights to low-tax jurisdictions, IP boxes should include a clause conditioning the eligibility to the incentives on the local development of IP rights.

- 32. Given that various form of public support to R&D in Poland, it is important to note that an analysis of the effectiveness of the IP box would need to consider the overall framework of tax and non-tax support. The analysis should also consider the risk of potential overlap between these different support measures, which could result in an inefficiently high level of support
- 33. See Jensen, Winiarczyk (2014) for an assessment of SEZs in Poland. While the study finds a positive effect of SEZs on FDI, it does not find any significant effect on employment and wages. The authors also suggest that SEZs should be used as temporary policies and that for them to be effective in the medium-to-long run they should be supported by more comprehensive local development policies. Other authors have analyzed the impact of Chinese SEZs, finding positive impacts on FDI and productivity (see for example (Wang 2013)).
- 34. These estimates account only for the direct foregone revenue associated with these measures and do not consider the equilibrium effect that these measures can have on the CIT tax base.
- 35. See PIE (2020).
- See IMF (2018) for a review of the limitations of the topdown approach used to estimate the CIT gap in PIE (2020).
- 37. Promoting international and EU cooperation on the issue of profit offshoring remains key to limit tax competition and reduce CIT revenue losses from profit shifting. See the discussion in De Mooij et al. (2021).
- 38. When size cannot be fully controlled, this discontinuity can also create uncertainty as firms will be unsure about their eligibility to the preferential scheme.
- 39. Besides creating a jump in the average CIT rate, the current system alters the relative expected return on investments for firms above and below the eligibility threshold. Relative to a common CIT rate between 9 percent and 18 percent, under the common scheme, net returns on investments are higher for small firms and smaller for big firms. This additional effect is likely to incentivize the growth of small firms up to the eligibility thresholds and disincentivize the growth of firms above the revenue cutoff.
- 40. Recent evidence has shown the importance of ex-ante firms' types in explaining the growth dynamics of businesses (Sterk et al. (2021)) and have studied how entrepreneurs' decisions to start-up high growth firms change with the relative profitability of different startup opportunities (Sedlácek, Sterk (2017)).
- 41. See Haltiwanger et al. (2013) for evidence from the US. Recent evidence based on firm-level data has shown the lack of foundation for the commonly held belief that small firms are the engine of job creation. The belief that size, rather than age, is the key observable characteristic defining the job creation potential of firms has often been cited

to justify size-based preferential policies for businesses.

- The exemption applies to firms with annual turnover below €47,010.
- 43. These sectors are listed in Annex 15 to the VAT act.
- 44. An ex-post evaluation of a mandatory SPM system in Italy applicable to payments by public authorities to their suppliers found it to be successful at increasing VAT compliance (Carfora et al. (2017), Deloitte (2017)). In the first year after its introduction, the system is estimated to have increased VAT revenue by 2.2 billion Euros, equal to around 30 percent of the total VAT paid via the SPM by public authorities in that year.
- 45. See the analysis commissioned by the European Commission in Deloitte (2017) for a discussion of these points. It is worth pointing out that the existing evidence on the relative costs and benefits of SPM policies has so far focused on a comparison between reduction in VAT gap on one side and increase in compliance and administrative costs on the other. It has however overlooked the effects of SPM policies on efficiency and welfare, ignoring, for example, any efficiency gain arising from a reduction in fraudulent anticompetitive behaviors from businesses avoiding VAT payments.
- 46. See for example Abramovsky et al. (2017) for a discussion on the efficiency and equity of special VAT rates and exemptions.
- 47. See Crossley et al. (2009) and Thomas (2020) for a discussion on this point.
- 48. The assessment carried out in this report shows that on the aggregate the Polish system of indirect taxes, which includes both VAT and other indirect taxes, is regressive.
- 49. The European Central Bank has criticized the new tax for its potential negative effects on the provision of credits to the economy and on the financial stability of the banking system. The European Commission has also raised concerns that the tax might distort competition in the financial sector, due to the existence of several exemptions applicable to state banks, investment funds, and pension funds.
- The tax exemption was introduced on January 1, 2016 in contrast with European Council directive 2003/96/EC.
- 51. See OECD (2018) for more details on how the carbon price gap is calculated.
- 52. Tax expenditures aimed at fostering the green transition of the economy include: i) exemptions from personal income tax (PIT) on subsidies for thermal modernization provided through the "Clean Air" program and deductions on the cost of thermal modernization from taxable income; ii) investment relief from agricultural tax (local tax) on investment in equipment used for production of natural energy; iii) preferential 8% VAT rate on thermal modernization of buildings covered by the social housing program; and iv) exemptions from excise tax on electricity produced from renewable energy sources and on passenger electric vehicles and hydrogen-powered vehicles and hybrid vehicles (up to 2000cm³).

- 53. These tax expenditures include: i) reimbursements of the excise tax for fuel oil (diesel) consumed for agricultural purposes; ii) preferential 8% VAT rates in maritime and domestic airline transport of passengers; and iii) exemption of coal and coke products consumed in residential sector from energy tax.
- 54. Poland is already lagging most other EU countries in terms of its energy transition. It currently ranks secondto-last among EU countries in the Energy Transition Index published annually by the World Economic Forum (2019). See PIE (2020) for a discussion on this aspect.
- 55. Data is from the analytical project "Division of Powers" commissioned by the European Committee of the Regions.
- 56. Any policy reforming the current PIT system should also consider its impact on the resources of local governments. Local governments receive 51.19 percent of the total PIT revenue collected in their jurisdiction and these resources represent an important share of their budget. Changes in PIT rates will therefore have to be offset with targeted inter-governmental transfers or other compensatory measures to support local governments' budgets.
- 57. The proposed reform would thus imply the introduction of a transfer from the contributions paid by high-income earners towards low-income earners' retirement accounts. Given the low expected replacement rates estimated for the current Polish pension system, these transfers would be necessary to make sure that the reduction in SSC for low-income earners does not translate into a reduction in their future pension transfers.
- 58. See World Bank (2019) for a discussion of informality and of a worker's characteristics usually associated with a higher risk of informality.
- 59. See Attanasio et al. (2018) for recent evidence on the heterogeneity in labor supply elasticities for women.
- 60. See ILO (2018) for a discussion of the methodology and definition of informality underlying these estimates. The ILO estimate for the share of informal employment is in line with estimates in Williams et al. (2017), which find that in 2013 20.8 percent of total labor inputs in the private sector in Poland was undeclared.
- 61. The main reform scenarios considered in World Bank (2020) assume that the additional revenue from the reform is used to finance a uniform decrease in the PIT rate.
- 62. Examples of studies considering the effect of reducing the difference in tax treatments between incorporated and unincorporated businesses include Carroll, Joulfaian (1997) and Chen et al. (2018) . Studies on the subject usually find that policies harmonizing these tax treatments have important positive effects on the number of unincorporated businesses deciding to incorporate, on their future growth prospects and on their contribution to net job creation. Some evidence on the effect of decreasing PIT on entrepreneurs on the growth of small firms is provided in Carroll et al. (2000).
- 63. Imposing a common progressive tax scheme for employed, self-employed and capital income would also ad-

dress one of the main critiques that a system subjecting self-employed income and capital income to different tax rates would face. Self-employment usually requires the use of both capital and labor. Subjecting self-employment income to the employed income scheme thus implies that the capital component of self-employment income is considered for tax purposes as labor income. Harmonizing the tax regime across these three sources of income would address this possible critique.

- 64. See Saez et al. (2012) for a discussion of income shifting and of the response of different tax bases to the structure of the tax system.
- 65. Works in this literature usually find that some (limited) degree of negative jointness maximizes welfare. See for example the analysis in Kleven et al. (2009) and Gayle, Shepard (2019).
- 66. Relative to an individual system with no tax jointness, negative jointness achieves this goal more efficiently by counteracting the negative income effect of having a higher-income partner on the labor supply decisions of secondary earners.
- 67. The marginal tax rate on both household members will be equal to the rate applicable to a single individual earning their average income. If the two members do not earn the same income and the system is (strictly) progressive, this rate will be higher for the secondary earner and lower for the primary earner compared to the marginal rate they would get if they were taxed separately.
- Currently the National Revenue Administration (KAS) is charged with the collection of PIT while ZUS collects SSC.
- 69. An age-based system of tax preferences, where the eligibility to certain tax incentives is restricted to new or young businesses can result in artificial business churning, with existing firms attempting to qualify for the tax reliefs available to new firms. To gain eligibility to the tax incentives, business owners can for example either close an existing business and invest the freed-up capital in a newly incorporated/established firm or decide to spin off certain business activities into a new business entity.
- 70. World Bank (2018) contains a detailed discussion of this recommendation.

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CHAPTER 3

GENERAL GOVERNMENT EXPENDITURE

OVERVIEW

Poland's government expenditure as a share of GDP is close to the OECD average, but the share of rigid spending has been rising

Poland's general government expenditure level is similar to that of countries at a similar level of development. General government expenditure averaged around 43 percent of gross domestic product (GDP) over the decade prior to the COVID-19 crisis, close to the 44 percent OECD average (Figure 3.1 and Figure 3.2). The expenditure structure differs from that of the OECD average, as the share of social and capital expenditure in total expenditure exceeds that in other OECD countries. Meanwhile, the share of current expenditure on public services is lower (Figure 3.3 and 3.4). Some public services are seemingly underfunded, with health care spending as a share of GDP 1.9 percentage points lower than the OECD average. Similarly, environmental protection spending is

Figure 3.1 General government expenditure by country, 2019



Source: OECD.





Source: OECD.

about a third lower than the OECD average. Social protection spending accounted for 40 percent of the total spending in 2019, a level comparable to the EU average, and higher than that of regional peers (Figure 3.5). Meanwhile, social spending has recorded the largest increase in its share in the 2015–2019 period (Figure 3.6).

Figure 3.3 Structure of general government expenditure in Poland



Sources: World Bank analysis; OECD.

Figure 3.4 Structure of general government expenditure in some countries



Sources: World Bank analysis; OECD.





Figure 3.6 Change in the functional breakdown of general government expenditure, 2015 - 19



Source: Eurostat.

A large share of expenditure is rigid, reducing the scope for discretionary policy on the spending side. The share of rigid expenditure has increased over the past decade by 2 percentage points to 75 percent of spending by 2019, with Poland ranking in the middle of OECD countries (Figure 3.7 and 3.8). Highly rigid expenditure — which includes compensation of employees, social transfers and interest payments — accounts for 69 percent of all expenses. Medium-rigid expenditure (economic subsidies and other current transfers) accounts for an additional 6 percent. Among the rigid expenditure, the

importance of social transfers has been increasing, more than offsetting the decline in interest payments.





Source: World Bank analysis; OECD.

Figure 3.8 Rigid expenses in OECD countries, 2019



Source: World Bank analysis; OECD. Note: *subsidies and other current transfers

** compensation, social benefits and interests

In response to the COVID-19 pandemic, government expenditure increased by 6.9 percentage points of GDP to 48.7 percent in 2020. Fiscal buffers that had been built during the years leading up to the COVID-19 crisis allowed for a relatively large fiscal response: above-the-line measures were estimated at 6.4 percent of GDP, larger than in most other EU countries. In addition to an increase in pandemic-related health spending, crisis-related spending focused on preserving jobs and incomes. Expenditure support measures included among others: extended childcare allowances for parents; support for the economic downtime or reduced working time; financial support for the costs of employees' salaries and social insurance contributions due in the case of micro-, small-, and medium-sized enterprises with employees; financial support for the operating costs of business activity of the self-employed; increasing monthly subsidies for the salaries of employees with disabilities; and downtime benefits for persons employed under civil law agreements and self-employed persons. Compared to other countries (Figure 3.9), aid in Poland focused more on companies (subsidies, capital transfers) than on social transfers.

Figure 3.9 2020 change in general government expenditure by type: EU countries



Source: World Bank analysis; Eurostat.

General government spending is expected to remain high in 2021 and decline gradually by 2024. The government projects expenditure of 48.4 percent of GDP in 2021, declining to 43.5 percent of GDP by 2024 (2021 Convergence Program). In early November 2020, the authorities announced additional support following the second wave of the pandemic, effective as of late 2020, with eligibility limited to companies operating in the sectors most impacted by the partial lockdown. Also extended were wage subsidies, social security exemptions, and other existing measures, as well as some incentives for firms to reorient their lines of business. Although the expiry of temporary measures together with a resumption in growth are expected to contribute to the decline in spending to 45.4 percent of GDP in 2022, and to 43.5 percent in 2024, spending will be 1.7 percentage points higher compared with the pre-pandemic level.

Social programs introduced in recent years continue, except for the 14th pension, which is scheduled as a one-off measure for 2021. In the period 2021-24, the government assumes the continuation of the payment of child-rearing benefit in the amount of Zl 500 per month¹ and the so-called 13th pension (2021 Convergence Program)². Family and care benefits and payments from the Alimony Fund are expected to amount to Zl 12 billion annually. Meanwhile, payment of the so-called 14th pension (Zl 10.6 billion) is scheduled as a one-off measure in 2021.

SOCIAL PROTECTION EXPENDITURE

The share of social spending that is not means-tested has risen, affecting spending efficiency

Social protection expenditure increased to 16.7 percent of GDP (Figure 3.10), narrowing the gap with the EU average. Social transfers are 3.5 percentage points higher than the average for the CEE countries that are EU members. The increase in social expenditures was accompanied by a change in their structure: expenditures on families with children increased markedly, while most other transfers de-



Figure 3.10 Social transfers, 2019 or latest

clined, in part due to a favorable labor market and to a tightening of the benefit-granting system (Figure 3.11). Starting in 2019, along with the introduction of new benefits and higher indexation of pensions, old-age related expenditure also increased. Poland's benefits for families and children amount to close to 3 percent of GDP, one of the highest in OECD countries. Meanwhile, old-age related expenditure (close to 10 percent of GDP) is now at levels comparable with that of countries further along in the aging process. Poland also has one of the lowest retirement ages in the OECD; in October 2017, the retirement age was rolled back to 60 years for women and 65 for men, increasing general government expenditure (0.5–0.6 percent of GDP³) and affecting the labor market.⁴





Source: OECD.

Note: In relation to the previous period.

Higher social transfers to families contribute to poverty reduction and social inclusion, as well as to greater accumulation of human capital for children from disadvantaged backgrounds. Income inequality in Poland, as measured by the Gini coefficient (28.1), is lower than in the CEE10 and the EU average (Figure 3.12). Moreover, the share of people at risk of poverty and social exclusion has declined markedly to 18.2 percent in 2019, below the EU average of 21.4 percent. New programs (Family 500+, Good Start) also contributed to a significant reduction in the level of child poverty (Figure 3.13), especially in the case of families with parents with lower educational attainment. With the introduction of the Family 500+ benefit, the reduction in poverty is attributable equally to changes in distribution and to income growth. Both relative and subjective poverty have been reduced by the program (Paradowski 2020)⁵.

Figure 3.12 Gini coefficient of equalized disposable income



Source: Eurostat.





Source: Eurostat.

Source: OECD. Note: Includes cash and non-cash.

Social benefits could be contained, with limited impact on achieving equity objectives, through better targeting. Less than 5 percent of social protection benefits are currently means-tested (Eurostat, 2020⁶). Until 2016, noncontributory family benefits and social assistance were low compared with other high-income countries. For many low-income households this translated into a low level of redistribution and a negative cash position after taxes and transfers (Poland SCD 2017). In its original form, the Family 500+ program, introduced in April 2016, reduced coverage gaps and increased social expenditure, applied on top of previously existing programs. Since mid-2019, the income criterion for the program has been removed, nearly doubling the program's cost and transforming it into a general child support benefit easy to distribute, but very costly and not well-targeted towards the poor. The bottom 20 percent receive only 11.7 percent of all annual expenditures on the program. Families in the upper half of the income distribution receive 58 percent of the Family 500+ program funds, while the poorer half of the population receives 42 percent of the funds (Krol et al., 2021⁷). Expanded benefit eligibility resulted in a larger share of the families and children benefits that is not means-tested (Figure 3.14) and contributed to reducing the efficiency of the overall social assistance system. On the other hand, eliminating extreme child poverty could be achieved with 12.4 percent of the total annual program cost, according to a study analyzing the original version of the program (Brzezinski, 2019)⁸.



Figure 3.14 Family and children benefits

Sources: Eurostat; 2019, 2020 World Bank estimates.

There are several fiscal instruments to support families with a large overall cost relative to results (Brzezinski, 2019).⁹ These include tax breaks, family benefits, and the Family "500+" benefit. Family benefits, which were the main source of financial support for families with children until 2016, include:

- regular financial benefits for low-income families, i.e., family allowance and its supplements;
- benefits for families of disabled children related to care responsibilities (nursing allowance, nursing benefit, special care allowance);
- 3. one-off payments after the birth of the child; and
- 4. parental benefit for parents not entitled to usual maternity/parental leave and benefit.

The 500+ program was introduced as an overlapping benefit (not affecting eligibility to any other) in an already complex social assistance and family support system. Moreover, there were other important changes in recent years that also increased financial support available to families. Child tax credit values were increased, and so were the family benefit amounts and eligibility thresholds. Additionally, the Good Start program was implemented, providing a financial transfer to all parents of school-age children at the beginning of school year (Goraus et al. forthcoming). The redesign of the full set of policies for families with children, taking a comprehensive approach, could increase their effectiveness while considering their implications for labor force participation. An additional benefit for all pensioners was introduced in 2019, the so-called 13th retirement pension. Yet another benefit (the 14th pension) equal to the minimum pension was paid late 2021, benefitting an estimated 87 percent of pensioners, while an additional 8 percent of pensioners will receive a reduced benefit.¹⁰

The introduction of the new child benefits has significantly changed the relative situation of households with and without children. The introduction of additional child benefits has significantly improved the net position of households with children towards the budget, which was not the case with families without children (Figure 3.15 and 3.16). In the case of low-income single parent families, the initial change (in 2016/2017) was fundamental — going from net payers to net beneficiaries. This was because from the very beginning, the benefit was payable as of the first child. On the other hand, with a constant value of the benefit and increasing average earning, the relative impact of the benefit on the position of the poorest households gradually diminishes. The situation is different for higher-income households that became beneficiaries of 500+ for the first child only from 2019. In this case, the full benefit of the 500+ program was not felt until 2020 (the first full year of 500+ for all children).

The risk of poverty and exclusion for other vulnerable groups remains and there are considerable spatial differences. Despite generally positive trends regarding the risk of poverty and social exclusion, challenges remain for people in single-person households. In this group, the percentage of people at risk of poverty and exclusion is twice the average and has increased since 2015. The problem affects people whether under or over the age of 65. Spatially, the differentiation of the risk of poverty and social exclusion is still high. In 2019, the highest share of those at risk is found in eastern and northeastern Poland. The lowest share is in Warsaw and southwestern Poland. The main social exclusion challenges are now related to providing support to single and socially-excluded adults and improving the housing situation of the poor.

The design of the old-age pension system (based on a notional defined contribution) theoretically ensures long-term stabilization of pension expenditure in relation to GDP (EC, 2021¹¹), but it will come at the cost of a dramatic drop in the replacement rate (Figure 3.17). Women, for whom in 2017 the retirement age was rolled back to 60, will be in a particularly difficult situation. The replacement rate drop means that official forecasts of pension expenditure could be underestimated. The actual expenditure could be greater due to 1) the budgetary subsidy necessary to cover the difference between the actual and the minimum guaranteed pension benefit¹²; and 2) the risk that with declining replacement rates workers may claim disability

Figure 3.15 Gross and net position by type of household

Single person, 167%, no child Single person, 100%, no child Single person, 67%, no child Single person, 67%, 2 children Married couple, 100%/07%, 2 children Married couple, 100%/67%, 2 children Married couple, 100%/100%, 2 children Married couple, 100%/67%, no child





Sources: World Bank analysis; OECD.

Note: 67, 100 and 167 percent stand for income level of the adult family members (as percent of average earning).

Figure 3.16 Net position by type of household



Sources: World Bank analysis; OECD.

Note: Net position = income tax + SSC - cash benefits 67, 100 and 167 percent stand for income level of the adult family members (as percent of average earning)

pensions rather than old-age pensions to maximize their lifetime pension income (Poland SCD 2017). In a dozen years' time, this underestimation could be as high as 2–3 percent of GDP a year (Tyrowicz, 2020¹³). Additionally, old-age related expenditure will also increase due to social benefits for pensioners with very low pension benefits who will not acquire minimum pension rights.



Figure 3.17 Replacement rates in the EU in 2050

Sources: EC, Aging report 2021.

Combined, the tax system and social transfers led to a visible reduction in inequality. The Polish fiscal system is characterized by progressive and inequality-reducing transfers (including both pensions and non-pension transfers), close to neutral direct taxes, and regressive indirect taxes. The inequality-reducing capacity of the fiscal system has increased in recent years. Compared to other countries, Poland's fiscal system has relatively large inequality-reducing effects. (World Bank, 2021¹⁴).

In 2020, pandemic-related disruptions to the economy - including rising unemployment and strong industry-specific performance disparities — increased household income differences, with the Gini coefficient reaching its highest level since 2015. Given the uneven pace of recovery in individual parts of the economy, this situation may persist this year. The situation of poorer households is also adversely affected by relatively high inflation, subsiding the real effects of salary increases and leading to a decline in the real value of social transfers not subject to indexation. Since no major changes are foreseen in social transfers, the planned amendments in personal income tax and social security contributions might drive changes to income equality in the coming years.

EXPENDITURE ON PUBLIC SERVICES

Current expenditure on public services is relatively low

Current spending on the provision of public services is low compared with the OECD average, across most key spending categories. In recent years, spending on public services has been below 20 percent of GDP. The largest gaps are in spending on health, which reached 4.6 percent of GDP in 2019 — almost 2 percentage points below the OECD average — even though total health care spending has increased sixfold since the 1990s. The latter remains one of the lowest in the EU as a share of GDP or spending per capita. During the pandemic, structural weaknesses of public services became more apparent partially related to underfunding, e.g., COVID testing per population has been one of the lowest in the EU.

System-level policies promote equity in both education and healthcare but in practice, access to services as well as satisfaction differ markedly (Figure 3.18 and 3.19). In the case of health services, satisfaction rates are below the OECD average and many people face restrictions in accessing services (OECD, 2020a¹⁵). Poland scores well in education, on both satisfaction and attainments, as measured by the position in the PISA ranking.

Figure 3.18 Satisfaction and confidence across public services in Poland



While access to high quality health services is an important determinant of inclusion and human capital building, Poland still faces challenges. Despite initiatives like the introduction of free access to a range of medicines for people aged 75+ and integrated care programs for selected population groups, access to care still depends on the place of residence, education, or wealth level (Figure 3.20). The health care system is understaffed (Figure 3.21) and suffers from inefficiencies. Despite a visible shortening of the median waiting times for some procedures, they remain relatively high (OECD, 2020b¹⁶). Pandemicinduced delays in diagnosis and rapid population aging will put even more pressure on the health care system in the coming years. Although pressure for

Figure 3.20 Self-perceived health, 2019



Source: Eurostat

Figure 3.21 Practicing doctors, 2018 or latest



Source: OECD; Gallup World Poll.

Note: * satisfaction with health care and education, confidence with judicial system and local police

Figure 3.19 Satisfaction and confidence across public services: Poland vs. OECD, 2019



Note: * satisfaction with health care and education, confidence with judicial system and local police

Source: OECD.

efficiency and quality is in place in individual hospitals, it is still lacking at higher levels (voivodeships, NFZ, and ministry). Experience from other countries clearly shows that a more holistic (regional or national) approach is needed to achieve high efficiency and quality of care (Poland SCD 2017).

The impact of recent education reform on educational attainments is yet to be assessed; however, there is room for improvement in developing competencies needed in a modern economy and society. Challenges to developing such competencies as the ability to cooperate, creativity, etc. have been well-documented, including in government studies.¹⁷ Poland's schools were ill-prepared for online learning, which increases the risk of a divergence in learning outcomes, to the detriment of rural areas and small towns. Even before the COVID-19 crisis, learning outcomes in rural areas were falling behind urban areas by the equivalent of one year of schooling. Comparisons with other countries also show that there are still gaps in early (below 3 years) childhood education enrollment, and the availability of preschool education facilities varies across regions. Also, the percentage of vocational education and training (VET) students enrolled in combined school- and work-based programs is low (OECD, 2019b¹⁸). Only two Polish universities have been rated as among the best 500 in the world (ARWU, 2020¹⁹). In a rapidly changing labor market — accelerated by the pandemic — the low participation of adults in lifelong learning is a challenge (Eurostat, 2021²⁰). Closing these gaps does not require an increase in spending as such, but a more precise targeting.

GROWTH-ENHANCING EXPENDITURE

Growth-enhancing expenditures are relatively high and volatile

Public investment expenditure is relatively high compared to other OECD countries, but the public capital stock remains one of the lowest in the EU. Public investment dropped by a cumulative 25 percent in 2012–13 and has not recovered to its 2010–11 peak (Figure 3.22). A similar drop in investments was recorded in 2016–17. With the public capital stock to GDP ratio²¹ one of the lowest in the EU and infrastructure gaps existing in many areas (IMF 2020²²), there is significant scope to boost public investment by further tapping EU funds, which could in turn crowd-in additional private investments.





Note: * funds disbursed in a given year under infrastructure programs (due to the method of settlement, they are only an approximation of actual expenditure in a given year)

Source: Eurostat.

New EU funds, including the Recovery and Resilience Facility (RRF), provide an opportunity for higher public investment in the coming years. For 2021–22, the government assumes a temporary increase in investment expenditure to 4.8 percent of GDP, and then a return to the 2019 level (4.3 percent of GDP)²³. Projects co-financed from EU funds, including cohesion funds and the crisis-related Recovery and Resilience Facility, will help to maintain capital expenditure above 4 percent of GDP. In its National Recovery and Resilience Plan (NRRP), Poland applied for all available grants (€23.9 billion) and €12.1 billion of preferential loans²⁴. Full utilization of the potential that exists in public investments by crowding-in private sector investments requires a stable and predictable regulatory and tax environment for companies. On the other hand, a tight labor market and capacity constraints in selected sectors, such as construction-related manufacturing branches, could limit the effective absorption of the EU funds.

Local governments play an important role in public investments. Local governments accounted for over 40 percent of investment expenditure in the general government sector in recent years, with the notable exception of 2016 (Figure 3.23). Depending on the year, these outlays accounted for 1.4 to 3.1 percent of GDP, showing high volatility. Local governments play a particularly important role in housing, recreation, and environment investments. In terms of transport, education, and health, they account for around half of the expenditure.



Figure 3.23 Local government investment expenditure

Source: Eurostat.

Some reforms introduced in recent years - including tax changes – affect local governments' own income and their capacity to invest, including in the greening agenda. Further changes in PIT (e.g., increase in the tax-free amount, increase of the threshold from which 32 percent tax is paid) and CIT (new reliefs, increasing the scope of entities that will be eligible to benefit from the so-called Estonian tax) planned for 2022, may intensify this problem. According to initial estimates, local governments - which participate in the collected income taxes — may lose Zl 10-11 billion as a result.²⁵ To compensate for the lost income, the government has announced a special investment subsidy, but being earmarked, it will likely further reduce local governments spending flexibility.

Public investments appear to fulfill a dual economic and social development role. Many lagging regions have an above-average public capital stock to GDP ratio. The impact of public investment on economic development in these areas may be negatively affected by constraints arising from geographical, environmental and structural conditions, and/or challenges in preparation and selection of investment projects. It may also reflect a preference for investments that improve the quality of life for the region's citizens, rather than increase economic potential.

A strategic state reconciles growth with budget discipline; therefore, it is selective in investment and focuses on the quality of public investment management. A strategic state targets public investment on sectors with high growth potential and positive externalities such as transport infrastructure, energy and broadband network, and R&D efforts. In Poland, the largest amount of capital expenditure is for transport infrastructure, but the lack of coordination across all transport modes and the limited number of intermodal terminals resulted in the limited complementarity of the different transport modes and suboptimal use of existing infrastructure. There are also significant regional infrastructure disparities, e.g., limited connectivity between towns to regional centers in eastern and northwestern Poland (Poland SCD 2017). A recent international study based on Data Envelopment Analysis reveals the potential for improvement in public investment management in Poland (IMF 2021²⁶, Figure 3.24). A comprehensive, independent assessment would allow for the identification of the main inefficiency sources. A longterm life-cycle approach to managing and financing transport and ICT infrastructure would help to improve spending efficiency, prepare for the likely phasing-out of EU financing, and reduce the overall infrastructure gap. Considering the role that local governments play in public investment, the capacity of local actors to design and implement economic development initiatives in an inclusive manner ought to be strengthened.

Public investment in R&D and basic research is low compared with other high-income countries. Basic infrastructure in Poland continues to absorb



Figure 3.24 Efficiency gap in infrastructure spending: EU countries

Figure 3.25 Structure of growth-enhancing government expenditure



Source: IMF Fiscal Monitor – April 2021. Note: * the difference between the country's spending efficiency and that of best performers

Source: Eurostat. Note: *excluding R&D and basic research expenses

a significant share of public investment compared to other high-income countries. Transport infrastructure accounts for the largest share — approx. 40 percent — of the gross fixed capital formation. Poland continues to spend relatively less on R&D and basic research and these expenditures represent a small share of growth-enhancing²⁷ spending (Figure 3.25). Although the final figures for 2020 are not yet available, there are many reasons to believe that the targets for the increase in R&D spending envisaged in the Europe 2000 program and the Responsible Development Strategy have not been met²⁸.

Low financing costs and an important decline in the debt-to-GDP ratio have led to a decline in interest payments as a share of GDP. Lower interest payments have created additional fiscal space than would have been otherwise the case, with interest payments declining to below 1.4 percent of GDP, down from 2.7 percent of GDP in 2012. The cut in the National Bank of Poland reference rate to 1.5 percent in March 2015 and a further reduction since February 2020, together with open market operations, has lowered financing costs for government debt during the crisis. Interest expense benefited also from the 2014 debt reduction, the one-off transfer and subsequent write-down of government debt securities (worth approximately 9 percent of GDP) from open-ended pension funds to the Social Insurance Institution (ZUS). In a low interest rate environment, even the significant increase in government debt due to the pandemic has not led to an increase in interest costs. The risk for the low-interest cost scenario could be the growing global inflationary pressure.

PERFORMANCE AND EFFICIENCY

Government performance and efficiency have stagnated

Recent EU-wide studies²⁹ place Poland in the middle of rankings on public administration capacity, measures of governance and service delivery and growth friendliness. Poland performs rela-

1 st quartile (best performers)	2 nd quartile	3 rd quartile	4 th quartile (worst performers)
 Strategic planning capacity SGI^a implementation capacity Societal consultation Use of evidence-based instruments 	 Access to government information Transparency International perception of corruption Impartiality Professionalism Closedness Pre-filled forms Ease of doing business Inter-ministerial coordination 	 Transparency of government Voice and accountability Control of corruption Gallup perception of corruption Online services Online service completion Services to business Regulatory quality Rule of law 	 E-government users Barriers to public sector innovation QOG^b implementation capacity Trust in government

 Table 3.1
 Poland's position among the EU member states by government capacity and performance indicator

Source: "A comparative overview of public administration characteristics and performance in EU-28" (EUPACK, 2018) Notes:

^a implementation capacity component of the Sustainable Governance Indicator (Bertelsmann Stiftung)

^b implementation capacity component of the Quality of Government institute Gothenburg expert survey

tively well on issues related to the organization and processes of governance, while ranking lower on digitalization and services delivery, according to a comparative analysis of public administration characteristics and performance (EUPACK, 2018³⁰, Table 3.1). Overall performance of public expenditure in Poland did not improve significantly in the 2007-16 period, in line with the EU-wide trend (Cepparulo and Mourre, 2020³¹). There have been efficiency gains in the case of growth-friendly expenditure, such as public order and public services, as well as PISA-related education spending³². Meanwhile, efficiency losses were recorded in the case of capital expenditure, R&D and non-PISA related education expenses. A recent study conducted for OECD member states (Afonso et al., 2020³³) confirms that although the efficiency gap is narrowing over the long term, the process is slow and the gap is still significant.

Inefficiencies in spending on education are relatively small, greater in the case of health care.

A recent assessment based on Data Envelopment Analysis (IMF, 2021³⁴) indicates inefficiencies in spending on education to be relatively small — smaller than both the CEE and the EU average. In the case of healthcare, the efficiency gap is greater, above the average for the EU, but still below the CEE average (Figure 3.26). Both allocative and technical efficiency of primary education were high in 2018, because of continuous improvements over the analyzed period (2006–2018). The peak in efficiency in secondary education was recorded in 2012 (Dinca 2021).³⁵ It then declined in subsequent periods, although it remained higher than in other EU countries.³⁶ Technical efficiency of tertiary education remained high throughout the period, while allocative efficiency has deteriorated over the last decade.

Figure 3.26 Efficiency gap in health and education spending: EU countries



Sources: IMF Fiscal Monitor - April 2021.

Notes:

^a the difference between the country's spending efficiency and that of best performers

 $^{\rm b}$ average for the EU members from the CEE included in the analysis $^{\rm c}$ average for the EU members included in the analysis

A performance assessment based on economic transformation priorities indicates the need for faster changes in a post-pandemic world. The ongoing global changes pose new challenges to governments and require transformation not only of societies and economies, but also of governments themselves. In a recent study related to this transformation, the World Economic Forum (WEF) tried to evaluate countries' emerging priories as they embarked on a full integration of social, environmental and institutional targets into their economic systems (WEF, 2020³⁷). Among 37 countries — mostly developed and emerging economies – Poland was ranked 33rd. It ranked worse on social and health care, human capital accumulation, research and innovation, taxation, and facilitation of "markets of tomorrow" (Figure 3.27).

Figure 3.27 Performance in economic transformation priorities



Source: "The Global Competitiveness Report – special edition 2020," WEF.

Note:

^a The higher the score, the better performance

^b CEE3 – average score for Czech Republic, Hungary and Slovakia

Poland performs spending reviews, but their effective follow-up is assessed to be weak. Objectives of spending reviews are to identify efficiency savings as well as to assess and compare the effectiveness of various spending programs. Poland defined the legal framework for spending reviews in 2015. Since then, several reviews have been carried out, covering, for instance, expenditure on public administration and expenditure designed to support low-income families. They concluded with publicly available reports, but there is no indication that recommendations were used to inform the design of expenditure policy (EC, 2020³⁸). Institutionalization and inclusion of spending reviews into the budget process — envisioned in the 2021 Convergence Program — would increase the likelihood of spending reviews to play their intended role.

CLIMATE-RELATED EXPENDITURE

Spending needs to meet climate commitments are significant

Poland needs to step up its actions to meet more ambitious climate goals. While the EU's medium-term emission reduction targets are becoming even more ambitious, Poland faced challenges in meeting its 2020 national targets. In 2019, the share of renewable energy in gross final energy consumption increased by just 0.7 p.p. to 12.2 percent, well below the 15 percent aim. For primary energy consumption, the assessment is hampered by the COVID crisis³⁹.

Despite the efforts made in the last 30 years, Poland still lags high-income European countries in terms of the quality of environment. Poland is one of the most greenhouse gas (GHG)-intensive economies in the EU, second only to Bulgaria. Poland is also one of the most polluted countries in the EU. If pollution were to improve to meet the WHO guidelines, residents in Warsaw would add 1.2 years to their life expectancy (AQLI, 2020⁴⁰). Bad air quality translates to premature death rates attributable to outdoor air pollution $-PM_{25}$ - 55 percent higher compared to the EU average (OECD, 2020b⁴¹). Poor air quality causes nearly a quarter of bronchitis cases among children, leading to over 200,000 cases every year. Pollution also damages the economy, contributing to 8 percent of total lost workdays (WB, 2019⁴²).
General government spending on environmental protection declined in recent years and is now about one-third lower than the EU average (Figure 3.5). In recent years, this expenditure has been at the level of 0.5 percent of GDP, below both the CEE (0.65 percent) and the EU-27 average (0.8 percent). About one-third of this expenditure is investment expenditure. Over 60 percent of expenses were spent on waste management, while pollution abatement represented another 10 percent. Environmental protection investments by the general government were on average 0.15 percent of GDP in the 2016-19 period. The scale of investments in recent years was significantly smaller than in prior periods (0.3-0.4 percent). Close to 90 percent of general government investments on environmental protection were carried out at the subnational level, with budgetary units carrying out the remainder.

Subsidies for the energy sector remain low and are skewed towards fossil fuels. Total energy subsidies (regardless of the environmental impact) accounted for 0.6 percent of GDP in 2018, below the EU average of 1.2 percent (EC, 2020⁴³). Of these, approximately two-thirds are subsidies for fossil fuels (coal mining industry restructuring, grants for thermal modernization projects or replacement of high-emission heat sources with low-emission one) and only one-third goes to renewable energy.

Other environmental policy instruments include preferential and commercial loans for environmental protection and energy efficiency projects, pro-ecological investments provided via public finance institutions, and dedicated programs. The National Fund for Environmental Protection and Water Management (NFOŚiGW) and its regional counterparts (WFOŚiGW) are pivotal elements of the environmental protection financing system in Poland, providing direct preferential financing (estimated at around 0.01 percent of GDP in 2018) and pro-ecological loans in cooperation with the Bank for Environmental Protection (BOŚ, whose main shareholders is NFOŚiGW). Proecological commercial investment and non-investment loans granted by BOŚ in 2019 amounted to 0.1 percent of GDP, financing projects related to development of renewable energy sources, increasing energy efficiency in industry, circular economy, thermo-modernization, and improving air quality.

Environmental investments and reforms are an important part of the National Recovery and Resilience Plan (NRRP). Two of the five components of the NRRP are directly dedicated to the green transformation. The objective of the Green Energy and Energy Intensity Reduction component is to reduce the negative impact of the economy on the environment while ensuring the country's competitiveness and energy security. The Green, Intelligent Mobility component aims to develop a sustainable, safe, and resilient transport system that adequately serves the needs of the economy and society. A total of €21.8 billion is allocated to these two components, i.e., over 60 percent of the funds provided for in the NRRP. Given the nature of the expenditure, a significant part of the component 2 and 5 of the NRRP funds will be allocated to institutions outside the general government sector, and within the general government to municipalities.

Poland is also a beneficiary of significant funds from the Just Transition Mechanism, a tool to support a fair transition towards climate-neutral economy. The Just Transition Mechanism is based on three pillars: Just Transition Fund, European Investment Bank loan facility and InvestEU Just Transition scheme. Poland is set to become the biggest recipient of financing from the Just Transition Fund, amounting to €3.5 billion, which are expected to mobilize local funding to support national investment efforts towards a transition of country's energy sector. Finally, as a part of the Cohesion Policy, 30 percent of the European Regional Development Fund and 37 percent of the Cohesion Fund should be allocated to activities related to climate (approximately €17.7 billion).

Full implementation of the green agenda requires mobilization of different types of financial resources. According to the estimates contained in the Energy Policy of Poland until 2040 (PEP2040), the energy transformation of Poland, carried out in a socially acceptable manner, while guaranteeing energy security, maintaining competitiveness of the economy, and limiting environmental impact will require huge investment outlays, approximately Zl 1,600 billion⁴⁴; Zl 867–890 billion in the fuel and energy sector, and Zl 745 billion in non-energy sectors (industry, households, services, transport, and agriculture). While EU



funds will contribute significantly to transformation in the coming years (especially after the launch of the NextGeneration EU package), there may be pressure after 2025 for a significant increase in the commitment of national funds, including the budget.

While direct environmental spending is currently low, Poland will need to use the full suite of fiscal policy instruments to reach its climate objectives. The role of government in green transformation goes beyond direct spending. It must incentivize changes through tax incentives, pricing, regulation, and other tools at its disposal combined in a comprehensive environmental strategy. So far, some instruments support the energy transition (e.g., the feed-in tariffs and feed-in premiums providing price support as well as grants to the development of renewable energy capacities), but others support fossil fuels (e.g., tax expenditures supporting the utilization of fossil fuels in the energy sector, agricultural production, transport and by households).

PUBLIC EMPLOYEE COMPENSATION EXPENDITURE

Public employee compensation as a share of GDP and employment relative to total employment is similar to those of other OECD/EU countries

The level of compensation as a share of GDP and the share of public employment are both in line with that in peer countries. General government employment accounts for 17 percent of total employment in the economy⁴⁵, while compensation expenditure until 2020 was marginally above 10 percent of GDP, close to the EU average (Figure 3.28). Employment in public administration is highly decentralized, with close to 60 percent of all general government employees working in the local government sub-sector. The education sector accounts for 30 percent of the general government wage bill, while the share of the public wage bill for health care and general public services are lower.



Sources: IBS, Eurostat.

The employment structure in the public sector is skewed more towards the older age groups compared with the private sector (Figure 3.14). Seventeen percent of public administration employees are within five years of retirement age, compared with 8.8 percent in the private sector. Less than 8 percent are younger than 30, compared with 18.5 percent in the private sector. Education and health care have a higher share of older workers at 18.5 and 19.7 percent, respectively. Given the highly specialized skills in these sectors, an advanced age structure may result in shortages of qualified personnel and could put pressure on some public service delivery (IBS, 2021). Poland already has one of the lowest numbers of practicing doctors per capita in the OECD.

Figure 3.29 Age structure in public administration and business



Sources: IBS, Eurostat.

Figure 3.28 General government wage bill



Figure 3.30 Average monthly wage and salary: growth

Figure 3.31 Average monthly wage and salary: level



Source: GUS data (excluding micro enterprises).

Freezing the central government remuneration fund was one of the expenditure containments measures in post-global financial crisis (GFC) fiscal consolidation. As a result, the public wage bill grew at a slower pace than GDP and the wage bill to GDP ratio dropped by 1 percentage point from its 2010 peak to 10.1 percent in 2018. Increasing wage pressure in the economy prompted the government to allow for faster growth of wages in 2019 and 2020 (Figure 3.30 and 3.31), and the level of compensation expenditure increased to 10.3 and 10.9 percent of GDP, respectively. In the 2021 Convergence Program, the government projects that the wage bill to GDP ratio will gradually decline to 10.5 percent of GDP in 2024.

For some professions, salary levels appear inadequate, including for selected categories of health care employees: nurses, midwives, and paramedics. The prevalence of self-employment among medical staff (physicians, but also other hospital staff) obfuscates the true health care personnel expenses. In education, the main challenge is the design of the remuneration system, in which internships and experience have little impact on earnings. This makes the teaching profession relatively unattractive, especially considering the rapid growth in wages in the rest of the economy.

Over the last decade, the public administration wage premium has disappeared

Wage bill containment, used as a tool for consolidating expenses, eliminated the wage premium in the public administration⁴⁶. While before the global financial crisis, public sector employees enjoyed a wage premium of 5 percent, in 2018 they faced a wage penalty of 3 percent compared to private sector employees of the same age, education and occupation (IBS, 2021).47 However, this overall indicator masks substantial heterogeneities. Older employees in the public administration still benefit from a significant wage premium (5 percent in 2018), while earnings of young workers are 12 percent lower than the wages of their peers in the private sector (Figure 3.32). Furthermore, returns to education in the public administration are lower than in the private sector; in 2018, tertiary educated public administration employees earned on average 10 percent less than similar private sector employees and public administration workers with upper secondary education enjoyed a wage premium of 10 percent. An even larger premium – of 16 precent – was observed among employees with elementary, lower secondary, or basic vocational education (Figure 3.33). This situation is due to the design of the remuneration system, which pro-



Figure 3.32 Estimated public administration wage premium/gap, by age group

vides benefits such as one percentage point for each additional year of tenure starting from the fifth year, capped at 20 percent, and one-time bonuses for long tenure⁴⁸. These benefits contribute to a rising wage premium for this category of workers (IBS, 2021).

The design of the remuneration system makes it difficult for the public administration to compete for talent with the private sector. While public administration remains an attractive workplace in case of lower-skill professions, it is unattractive for those with high skills. Occupations in the public administration with the highest wage premia include drivers, cleaners and helpers, and legal, social, and cultural professionals. For ICT professionals, life science and health professionals, as well as managers in the public administration, the wage gap relative to the private sector is negative.

In lagging regions, the public administration remains an attractive employer. A particularly large wage premium exists in Podkarpackie voivodship (14 percent). A public-private wage penalty is observed in three relatively high-developed regions, including Mazowieckie, where the vast majority of the central administration is located.

While women account for most of the employment in the public sector, in managerial positions they are underrepresented. In general, employment in the public sector and public administration is attractive for women, who account for 60 percent of the general government employment. But data for



Figure 3.33 Estimated public administration wage premium/gap, by education level

Sources: IBS; Structure of Earnings Survey.

the central government — for which adequate statistics are available — indicate that the higher the level of positions, the lower the share of women ($OECD^{49}$).

Employees with higher secondary education — Employees with tertiary education

EXPENDITURE DECENTRALIZATION

Final general government expenditure is evenly split between three government levels.

The launch of significant family programs (Family 500+, Good Start) distributed by municipalities has led to an increase in the share of local government spending in recent years. The final government expenditure is now evenly split between the three government levels: central, local, and social security funds. Since the split is not as even on the revenue side, this is accompanied by large internal transfers, especially from the central budget to local authorities. With local governments controlling a third of all public expenditure, Poland has become one of the more decentralized countries in Europe. Decentralization of decision-making over the use of funds, however, is much less advanced (EC, 2018⁵⁰).

Experience in other countries shows that, in addition to many benefits, decentralization of expenditure can also lead to inefficiencies. Regular evaluation of potential threats can lead to early mitigation. Decentralization on its own is usually insufficient to improve the efficiency of public service delivery. It must be accompanied by other conditions, particularly revenue decentralization, which shows positive and significant impacts on public service delivery that are not observed with spending decentralization alone. Spending decentralization may also lead to an overlap in some government functions, potentially creating waste. Expenditure assignments are more often shaped by history and motivated by political and social dynamics than by efficiency (IDB, 2018⁵¹).

Consuming about one-third of total spending, social protection is the largest spending category for local governments, followed by education and economic affairs. Social protection represents the largest category in overall local government expenditure (29 percent of the total in 2020, i.e., 3.7 percent of GDP), followed by education expenditures (3.5 percent of GDP) and expenditure in transport, communication, and other economic interventions (economic affairs) accounting for 2.9 percent of GDP. Another major sub-national function is general public services (administration), which accounted for nearly 10 percent of total subnational spending. Spending on housing and community amenities accounted for around 3 percent of subnational expenditure. This function comprises various sub-sectors such as supply of potable water, public lighting, urban heating, housing (construction, renovation, and acquisition of land), and urban planning and facilities. On the other end of the spectrum is spending on public order, safety and defense which accounted for only 2 percent of subnational expenditure (0.2 percent of GDP). This category includes mainly local and regional police services, fire protection, civil protection, and emergency services.

OUTLOOK, MAIN CHALLENGES, RECOMMENDATIONS

Structural reforms will be needed to ensure compliance with Stability and Growth Pact fiscal rules over the medium term and to meet socio-economic objectives The aging of the population and the projected shrinking labor supply are forcing a shift from "volumes to values." Budgetary expenditure should contribute to this objective. This requires optimization of expenditure - switching from the wasteful and inefficient to those supporting productivity growth. Since poverty and social exclusion have been significantly reduced in recent years, Poland may re-focus toward growth-enhancing expenditure and underfunded public services. The former would ensure the sustainability of social policy also in the long term. The latter would address systemic weaknesses that have become even more visible during the pandemic, prepare public services for the aging process, and provide spillover effects to human capital.

Further expansion of universal social programs may crowd out growth-enhancing expenditure, leading to allocative inefficiencies from the perspective of the intergenerational balance. Further improvements in poverty and inclusiveness should be achieved rather through well-targeted (specific groups, regions), means-tested social assistance. The use of pilot programs could also serve to improve the effectiveness of new transfer measures. Further progress in reducing poverty and social exclusion can be also achieved through the tax and labor market policies, provided that they encourage people to choose employment forms, which provide security against random events, and a decent pension in old age through the (adequate) contributions to the social security system.

Some expenditure on social benefits could be reduced, without sacrificing equity objectives, through better targeting. Given the low effectiveness of some forms of social transfers in poverty reduction and social exclusion, a comprehensive review of some key policies would be desirable, especially those where multiple solutions — both on expenditure and tax side — overlap, leading to a low overall effectiveness (e.g., pro-family policy).

Due to wage pressure in the economy and the disappearance of the public administration wage premium relative to business, in the short term the wage bill does not appear to be a source of meaningful savings. Right now, the focus in this area **should be on existing shortcomings.** Compared to the business sector, employment in public administration is financially unattractive for young and well-educated people. In turn, seniority is overpaid. The wage system in some public services (e.g., education) should allow for a greater performance-based wage differentiation. Revision of the whole system and perhaps new systemic solutions are required in the health care (low remuneration in case of certain categories of health care employment, reducing transparency widespread application of self-employment in the medical staff). In the medium-term, digitalization should become a source of some saving for the overall wage bill.

Investments in human capital should be a particular priority. Identifying the optimal allocation of public resources to skills formation at different stages of the life cycle is crucial to improving the quality of human capital, and Poland should be guided by the best available evidence on the returns to different interventions. New literature finds that if one accounts for all the components of human capital – quantity, quality, and experience — the human capital explains much more of the cross-country income differences than previously estimated (IDB, 2018⁵²). Automation, robotization and digitalization - which are accelerating as a consequence of the crisis - tend to increase the premiums to higher and better-quality education. Under such circumstances, the policy of ensuring equal opportunities in access to building relevant skills and competencies becomes particularly important. Early-stage (pre-school) interventions are particularly efficient. They have high returns because they take full advantage of brain sensitivity peaks and facilitate future learning, a phenomenon called "dynamic complementarity" (Cunha at el., 2006⁵³). In the first stages of life, the rates of return are much higher for interventions directed to disadvantaged children than to well-off children. On-the-job training (OJT) is an important source of human capital, suggesting that policies that influence OJT (for example, fighting informality and labor market dualism) can have a potentially large impact on output per worker (IDB, 2018). Given the high concentration of older workers in easy-to-automate routine jobs, they may be disproportionately affected by the ongoing technological changes. This calls for intensified lifelong and onthe-job training.

Well-targeted health spending is also an important element of investments in human capital. Despite some progress, access to high-quality health care still depends on individual circumstances such as socioeconomic status and location. Poland will need to improve access through greater and more effective allocation of resources if it hopes to meet the needs of a growing elderly population.

To support a swift recovery and speed up the pace of structural changes (digitalization, automation, green transition, among others), a sustained level of growth-enhancing expenditures would be required. Therefore, reducing this type of expenditure should not be — as it used to be in the past — a victim of the fiscal consolidation process.

In the years 2022–23, favorable conditions may arise for the start of the fiscal consolidation process. Once the economic recovery is on a strong footing, the government should embark on a fiscal consolidation process. On the spending side, there could be renewed emphasis on increasing the efficiency, targeting, and equity impact of public spending.

Fiscal measures taken in the face of the pandemic were accompanied by a reduction in transparency and accountability of fiscal accounts. This is particularly true for the use of off-budget Special Purpose Vehicles (SPVs), allowing the circumvention existing fiscal rules and ceilings and weakening social control over public spending. While in crisis situations, the temporary use of SPVs may be justified, since amending a budget law to trigger additional emergency spending may take some time. The authorities should strive to ensure full transparency and accountability. The changes envisaged in the NRRP - especially the inclusion of special purpose funds in the stabilizing expenditure rule — are commendable. Poland could also consider establishing a fiscal council. If designed in accordance with the principles for independent fiscal institutions, it would help to achieve greater transparency and accountability.

While gross public pension expenditure is projected to be broadly stable over the medium term (Figure 3.34), there are risks of increased spending pressure. The rollback in the retirement age is expected to impact future pension benefits adequacy, increasing the incidence of minimum pension and potentially the associated fiscal costs. While gross public pension expenditure is projected to be broadly stable over the medium term, there are risks of increased spending pressure. The demographic component is projected to significantly impact gross public pension expenditure as the number of beneficiaries relative to that of potential contributors rises (3.7 percentage points increase over the 2019–30 period). Old age dependency ratio is projected to increase by nearly 10 percentage points by 2030 to 38.9 percent, as the post-war baby-boom generation continues to reach retirement age. This is estimated to be largely offset by the impact of reform-related factors⁵⁴ that positively impact pension expenditures (EC Joint paper on Pensions 2019). Sharp declines in replacement rates on account of the Notional Defined Contributions (NDC) system and its interactions with the expected rise in longevity represent a source of risks, however. Minimum pension guarantees and other social benefits for pensioners with pension benefits below the minimum pension could result in higher than estimated old-age related expenditures. Furthermore, an adverse macroeconomic structural shock could increase the gross public pension expenditure by 0.4 percentage points of GDP by 2030.⁵⁵





Source: EC Aging report 2021.

There are several sources of public spending pressure over the medium term. In 2017, the government pledged to increase the public share of health expenditure to 6 percent of GDP by 2024. This year, in its program called Polish Deal, the governing coalition has committed to increase public financing of health to 6 percent of GDP by 2023 and 7 percent by 2027⁵⁶. An integrated healthcare strategy is critical to ensure the highest efficiency of this additional spending. There are also other sources of pressure on public spending in the longer run, related to aging, long-term care costs are set to rise by around 0.3 percentage points of GDP by 2030 and another 0.4 percentage point by 2040 (EC 2021⁵⁷). The cumulative effect of demography-related changes is expected to increase government spending by about 2 percentage points of GDP by 2030, and possibly by as much as 4 points when risk factors are taken into account (Table 3.2).

	2019	2030	2040
		percent of GDP	
Public pensions	10.6	11.0	10.5
Health care	4.9	6.3	6.7
Long-term care	0.8	1.1	1.5
Education	3.8	3.8	3.5
Total	20.1	22.2	22.2
Total: risk scenario	20.1	23.1	24.0
Total: policy scenario linking retirement age to life expectancy	20.1	21.6	21.4

Table 3.2 Age-related general government expenditure

Source: Aging report 2021, EC.

The government could consider the following key policy recommendations to address the issues identified (see Table 3.3 for more details):

- Targeted support to affected economic agents and vulnerable groups, and support to the health care system should remain key priorities in the short term.
- A comprehensive review of the pro-family support (benefits and tax reliefs) to optimize cost and free funds for growth-enhancing projects.
- Increasing retirement age, gradual alignment of male and female statutory retirement ages, and ultimately introduce longevity adjustment of retirement age.
- In-depth review of the poverty/inclusion situation of the single-person households.
- An integrated healthcare strategy to address pandemic-related and structural issues and to efficiently use additional funds.

- Maximize the return on spending in education through optimal allocation of public resources to skills formation at different stages of the life cycle. Focus on pre-school and adult education as well as on-the-job training.
- Increase competitiveness of the public administration remuneration system for young, well-educated people. Consider limiting automatic raises in salary with tenure.
- Use digitalization to optimize employment in administration and public services.
- Seek fiscal coherence to support the green transition.
- Further strengthen the public expenditure review processes, especially through implementing effective follow-up mechanisms.
- Conduct an independent public investment management assessment to identify key inefficiency sources.

Main findings	Recommendations	Estimated net impact
 The pandemic had a significant impact on the economy and society. Fiscal policy is a key tool for mitigating its ef- fects and support the recovery. In the medium term, meeting formal EU and national fiscal rules (once they are reactivated) and maintaining pub- lic finances sustainability will require a well-thought-out consolidation strategy that will not endanger the recovery. Spending pressure to support the green transition will mount in the me- dium term. Advances in poverty reduction and so- cial inclusion coupled with positive ef- fects from the recovery on the labor market could allow Poland to reori- ent spending toward growth-enhanc- ing expenditure and underfunded pub- lic services. Lack of coherence of fiscal poli- cy instruments to support a green transition. 	 Further support could be provided in the short-term, as there is fiscal space. Targeted support to affected economic agents and vulnerable groups and sup- port to the health care system remain key priorities in the short term. Better- targeted containment measures have smaller budgetary implications. Growth-enhancing expenditures would need to be protected during the fiscal consolidation. Further strengthen the public ex- penditure review processes, especial- ly through implementing effective fol- low-up mechanisms. Seek fiscal coherence to support the green transition. 	• Subsidies to GDP ratio is expected to decline by 3.4 percentage points of GDP in 2021-22 as crisis measures are phased out.

Table 3.3 Main findings and recommendations

Main findings	Recommendations	Estimated net impact
	Performance and efficiency	
 The increasing universalization of social benefits gives rise to budgetary costs with limited additional benefits for poverty/inclusion. The current level of expenditure on benefits for families and children ranks Poland among the OECD leaders. Old-age expenditure is at similar levels as that of countries with much more advanced aging processes. Among single-person households, the percentage of people at risk of poverty and exclusion is twice as high as the average. Enrollment rates in early childhood education (below 3 years) remains low. Participation in lifelong education and training is low. The competitiveness of both the model (internship and experience have little impact on pay) and the level of wages in education are low. Given the high rate of wage growth in the economy this may lead to negative selection. Healthcare expenses are low, and the pandemic has revealed numerous systemic weaknesses. The overall level of public wage to GDP ratio is similar to that of other OECD countries. Capital stock level is relatively low, and the EU funding could help support public investment. The 2020 targets for the level of government spending on R&D/basic research are likely not met. DEA analysis reveals relatively large inefficiency in infrastructure spending. 	 A comprehensive review of the pro-family policy (benefits and tax reliefs) to optimize expenditure and free funds for growth-enhancing projects (0.8 percent of GDP). Increase retirement age, gradual alignment of male and female statutory retirement ages and ultimately introduce longevity adjustment of retirement age (0.4-0.5 percent of GDP). In-depth review of the poverty/inclusion situation of the single-person households. Use targeted rather than universal tools. Optimization of primary and secondary education expenses and shifting the saved funds for life-long learning (with special focus on developing digital skills). Further expansion of the childcare and long-term care facilities. An integrated healthcare strategy needed to address pandemic-related and structural issues and to allocate additional public health spending. The strategy could give more prominence to primary care, prevention, and e-health services. Reform could also address issues related to an aging population (e.g., excess capacity in the hospital sector is accompanied by shortfalls in the provision of long-term care). Limiting automatic raises in salary with tenure should be also considered. Use the National Recovery and Resilience Plan to ensure consistency of various development programs and to increase growth-enhancing expenditure in the short-term. An independent public investment management assessment would help identify key inefficiency sources. 	 Potential savings: up to 1.2-1.3 percentage points of GDP. Maintaining so- cial transfers at the level of 2020 would translate in savings of 0.6 percentage points of GDP. Increase (current expendi- ture): could be financed from higher health contributions. Saving potential from the public wage bill is limited over the short-term. Public investment is expect- ed to increase by 0.3-0.4 percentage points of GDP, with additional increase in R&D.
	Transparency and accountability	
 Since its introduction, the expenditure rule was subject to attempts to soften it. While in crisis situations, the temporary use of special purpose vehicles could be justified (amending a budget law to trigger additional emergency spending may take several weeks). Care must be taken to prevent circumventing public expenditure control procedures or existing fiscal rules. 	 The establishment of an independent fiscal council could help to achieve greater transparency and accountability. The inclusion of special purpose funds in the stabilizing expenditure rule. 	

Notes

- 1. A fixed cost of around Zl 41 billion annually (1.7 percent of GDP in 2021 and then gradually falling to 1.4 percent of GDP in 2024).
- 2. Due to the increase of both the benefit and the number of pensioners, the cost will go up from around Zl 13 billion in 2021 to 14.1 billion in 2024 (it will remain more or less constant — at 0.5 — as a percentage of GDP).
- 3. Based on ZUS estimates (as part of the so-called pension system review). According to those estimates in 2022-2025 the annual cost of restoration of a lower retirement age equals to approx. Zl 18 billion, of which approximately 80 percent is due to increased expenditure and 20 percent to lost income.
- 4. According to Chłon-Dominczak, due to the rollback there are already 1 million people fewer on the labor market and in the 2040s this loss will exceed 2 million people ("How the retirement age affects labor resources, labor force participation and pension system spending" article in "The retirement age and the pension system, the labor market and the economy," 2021).
- "Inequality, Poverty and Child Benefits: Evidence from a Natural Experiment", LIS Working Paper Series No 799, 2020.
- 6. Eurostat social protection statistics.
- 7. "Świadczenie wychowawcze po pięciu latach: 500 plus ile?", CenEA, 2021. It should be remembered that the database of households surveyed by GUS - used by the authors for their calculations – does not fully reflect the structure of households in Poland; the top income deciles are underrepresented.
- "Rodzina 500+ ocena programu i propozycje zmian", 2019. The estimates were for the original version of the program (when there was an income criterion for the first child in the family).
- 9. "Rodzina 500+ ocena programu i propozycje zmian", 2019.
- The top 5 percent with the highest pensions will not receive any 14th pension at all.
- 11. "Aging Report 2021," European Commission
- 12. Minimum pension is guaranteed for men and women with at least 25 and 20 contributory years respectively. If the pension is below minimum level, then the pension is supplemented by the minimum pension guarantee, which is financed from the state budget and general revenue financing. A significant part of the group of low-contribution payers, and thus future beneficiaries of the minimum retirement pension subsidies, are those who run a business and generate high income. It is difficult to consider such a situation as socially just.
- Presentation from "The retirement age and the pension system, the labor market and the economy" mBank-CASE seminar, 2020.

- 14. "Redistributive effects of taxes and transfers in Poland. Background paper for Public Finance Review," R. Badiani-Magnusson, K. Goraus-Tańska. The analysis was based on the CEQ model.
- "Citizen satisfaction with public services and institutions" in "Government at glance," 2020.
- 16. "Waiting Times for Health Services," OECD, 2020.
- 17. "Szkoła dla Innowatora: kształtowanie kompetencji proinnowacyjnych," 2018.
- 18. "Education at a glance 2019: Poland," 2019.
- 19. 2020 edition of the Academic Ranking of World Universities. The University of Warsaw saw its position improve, moving into the band of institutions ranked between 301st and 400th. Kraków's Jagiellonian University, moved in the opposition direction, dropping into the 401-500 band of rankings.
- 20. Eurostat statistics on participation rate of adults in education and training.
- 21. Based on IMF data: "Investment and Capital Stock Dataset, 1960-2017."
- 22. For the details see: "Infrastructure in Central, Eastern, and Southeastern Europe - Benchmarking, Macroeconomic Impact, and Policy Issues", IMF, 2020.
- 23. 2021 Convergence Program.
- 24. The amount of RRF loans available to Poland is ${\color{red}{\varepsilon}}_{34.2}$ billion.
- 25. Based on the statements by representatives of the Ministry of Finance to the press ("Samorządy stracą na Nowym Polskim Ładzie ok. 10-11 mld zł", Gazeta Prawna, 17.05.2021).
- 26. "Fiscal Monitor April 2021," IMF.
- 27. GFCF + basic research + R&D expenditure + investment grants.
- 28. In both documents it was assumed that total expenditures would increase to 1.7 percent of GDP. According to the Responsible Development Strategy 0.9 p.p. was to accrue to the government and higher education sector.
- 29. The indicators used in the study reflect the situation in 2015/2016.
- "A comparative overview of public administration characteristics and performance in EU-28," EC.
- "How & How Much? The Growth-Friendliness of Public Spending Through the Lens", EC.
- 32. Education expenditure on those levels of education which are covered by PISA (OECD's Program for International Student Assessment).
- 33. "Government Spending Efficiency, Measurement and Applications: a Cross-country Efficiency Dataset", A. Afonso, J. Jalles, A. Venâncio, 2020.
- 34. "Fiscal Monitor April 2021". In education outputs are test scores and net enrollment rates and input is public education spending per student (the methodology was

described in Patrinos, H., and N. Angrist, 2018, "Global Dataset on Education Quality", World Bank Policy Research Working Paper 8592). In the health care output is life expectancy and input is total per capita health expenditure (methodology was described in Garcia-Escribano, M., P. Juarros, and T. Mogues. Forthcoming "Patterns and Drivers of Health Spending Efficiency.").

- 35. "Assessment of the European Union's Educational Efficiency," 2021.
- 36. These estimates do not capture the effects of the education reform carried out in recent years. Since September 2017 primary school education was extended from 6 to 8 years, lower secondary schools - gimnazja - were phased out, with the last classes completing this education in school year 2018/2019.
- 37. "The Global Competitiveness Report special edition", 2020. 11 priorities were taken into account in the evaluation. The assessment for each of them was based on a set of various indicators.
- "Budget System in Poland: Challenges & Ongoing Reforms", Economic Brief 060, November 2020.
- 39. Target for 2020 was 96.4 Mtoe. In 2019 the actual consumption was equal to 98.13 Mtoe.
- 40. Air Quality Life Index Europe Fact Sheet, 2020.
- 41. "Health at a Glance: Europe 2020: State of Health in the EU Cycle", OECD, 2020.
- 42. "Air Quality in Poland, what are the issues and what can be done?," 2019.
- 43. "Final Report Energy Subsidies," 2020.
- 44. Annex 1 presents the amounts foreseen in PEP2040 financial framework defined in the state budget multiyear planning.
- 45. In addition to employment in the general government sector, there is also employment in the public sector, which additionally includes state-owned enterprises. According to the ILO estimates, the public sector employs nearly 24 percent of all workers.
- 46. This section has been prepared based on inputs from the Institute of Structural Research.
- "Public wage bill" background note prepared for the World Bank Poland Public Finance Review.
- 48. In the form of seniority benefits, e.g., one percentage point is added for each year of tenure starting from the fifth year (up to 20 percent). There are also extra awards for a long tenure (those who worked for 20, 25, 30, 35 and 40 years receive one-time bonus amounting to respectively 75, 100, 150, 200 and 300 percent of their monthly wage.)
- 49. Government at a glance database. While in expert positions women account for 70 percent, in the case of senior managerial positions for 50 percent.
- "Public administration characteristics and performance in EU-28: Poland", S. Mazur, M. Możdżeń and M. Oramus, 2018.
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ANNEX 3.1

PEP2040 FINANCIAL FRAMEWORK DEFINED IN THE STATE BUDGET IN MULTI-YEAR PLANNING

(ZI million)	2016	2017	2018 - 2020	2021 - 2025
Development Expenditure of the State Budget according to the definition of the Development Expenditure Classification—DEC (consolidated, except for grants to local authorities)				
47. Energy	17.96	16.86	52.24	87.06
48. Mineral deposit management	1068.91	3013.47	6123.57	10205.95
Total	1086.87	3030.34	6175.81	10293.02
Development Support Exper	nditure not cove	ered by the DEC		
47. Energy	51.45	56.91	162.55	270.91
48. Mineral deposit management	20.95	27.19	72.21	120.35
Total	72.40	84.11	234.76	391.26
Expenditure by Other Government and Self-government Units (where final expenditure is not shown, it is the amount of the grant from the State Budget to the unit)				
Low-Emission Transport Fund (from 10.2020 means under NFOŚiGW)	0.00	0.00	857.30	4029.20
Other general government and self-government units	13.59	152.92	249.77	416.28
Total	13.59	152.92	1107.07	4445.48
Cohesion Policy Expenditure and Co-Financing				
Energy	799.40	2474.56	12702.99	11262.44
R&D and entrepreneurship	217.66	145.56	1409.28	1249.47
Total	1017.06	2620.12	14112.27	12511.91
Expenditure under Other Foreign Instruments and Funds				
CEF (Connecting Europe Facility)	10.80	5.20	24.00	40.00
Norwegian Financial Mechanism, EEA Financial Mechanism	137.48	207.46	517.41	862.35
Total	148.28	212.66	541.41	902.35
TOTAL	2338.20	6100.15	22171.32	28544.02

Source: "Energy Policy of Poland until 2040", Ministry of Climate and Environment

CHAPTER 4

PUBLIC PROCUREMENT: SAVING AND GREENING

INTRODUCTION

Public procurement is an integral part of effective public financial management and a high priority for many countries. The last decade has seen a significant change in public procurement. Public procurers no longer simply carry out an administrative, compliance-based function; they now play an important role in spending taxpayer money for development strategy. Public procurement is a critical tool for public service delivery, as it acquires the inputs – goods, construction works, and services - needed for delivering public services. Public procurement therefore materially contributes to the goals of government, be it through efficient spending that maximizes "the bang for the buck"; through timely availability of inputs required for public services; through quality inputs that can raise the level of satisfaction of users of public services; or by spending public money fairly and transparently, which can increase public trust in government.

Public procurement constitutes a powerful tool for governments to achieve their economic, social development, and environmental goals and its efficiency is crucial. Governments around the world spend an estimated US\$9.5 trillion on public contracts every year — representing approximately 12 percent of GDP in OECD countries and up to 25–30 percent of GDP in developing countries. Poland has spent between 11 and 14 percent of annual GDP on procurement per year equivalent to Zl 24 billion per year on average (Figure 4.1) (OECD, 2019). Faced with growing public scrutiny and limited budgets, governments are under pressure to spend in ways that maximize outcomes for their citizens.

Procurement

Figure 4.1 Poland General Government



Green public procurement (GPP) is a key component of Sustainable Public Procurement (SPP).

It is defined as "a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared with goods, services and works with the same primary function that would otherwise be procured."¹ GPP constitutes an important tool to promote the use of greener products and services by the public authorities. GPP can also serve as a tool for broader development purposes: sustainable development; helping governments achieve environmental policy goals through pollution reduction; improvements in resource efficiency; sustainable production and consumption; reduced biodiversity loss; increased resilience; and addressing climate change.

Sustainable public procurement and SME support, along with value for money or cost savings, are key public procurement goals in Poland. While supporting SMEs through public procurement has long been a policy priority, supporting green or sustainable goals through public procurement has gained policy prominence in the last few years (Fazekas & Blum, 2021; Rosell, 2021). There are potential synergies as well as trade-offs between pursuing cost savings and strategic priorities (Adam et al, 2021). Understanding these trade-offs warrants further analysis. While the prevalence of SMEs in public procurement is high in Poland compared with other EU countries, the use of green procurement criteria is among the lowest in the EU, suggesting there is scope for policy to shift toward a more sustainable public procurement (Rosell, 2021).

The increasing use of e-procurement systems around the world makes procurement data details more readily available (OECD, 2016, 2017). The ready and real-time availability of government-wide, high granularity spending data (typically on the contract or purchased item level) is increasingly available. Such datasets can potentially provide the much-needed efficiency metrics as well as identify the policy-relevant factors that can bring about increased efficiency.

The comprehensive and novel framework used in this procurement analysis helps identify potential savings, as well as suggest policy interventions. This framework is used to understand purchasing decisions and prices and identify potential

savings strategies across the whole public procurement system (De Oliveira et al, 2019). The framework, which has been applied in a wide range of countries, combines traditional methods of strategic sourcing with economic theories of auctions and data science. The analysis uses very detailed and comprehensive administrative data on purchased goods, works, and services over a 10-year period, encompassing millions of records. The data allows for developing an innovative framework of two key elements:

- a procurement market overview using informative visualizations; and
- 2) regression modelling of relative prices across the whole procurement market.

The proposed framework uses relative prices to do a government-wide assessment and identify the most impactful policies. Relative prices are defined as the ratio of awarded to estimated contract value of goods, works and services. Empirically, the framework employs both simple and complex quantitative methods, making use of both descriptive and explanatory models.

The analysis aims to contribute to the policy debate in Poland based on robust data-driven insights. The methodology offers a reliable and specific tool for policy makers to understand public procurement markets and to identify factors driving cost savings, either directly under policy influence (e.g., length of advertising tenders) or that which can be indirectly influenced (e.g., number of bids submitted). The methodology feeds into day-to-day policy making, leading to recommendations typically feasible within existing legal frameworks by tweaking the parameters of policy implementation. The methodology is fully transparent and largely automated, so real-time policy advice can be provided based on simulating the impacts of distinct policy scenarios.

The data-driven price modelling identifies important savings that do not require fundamentally reconfiguring the composition of purchases or changing the regulatory framework. These potential savings are estimated at 4.9 percent per year (equivalent to Zl 24 billion in 10 years) and can be achieved through improved public procurement processes and decisions. These projected savings would require policy or procedural changes, such as increasing the length of advertising tenders or wider use of open procedures. Independently pricing each intervention also aids prioritization. This analysis discusses the strengths and weaknesses of such an approach and proposes improvements.

PUBLIC PROCUREMENT MARKET IN POLAND

Public procurement is critical for public service delivery, as it acquires the inputs — goods, construction works and services - needed for delivering services to communities. Public procurement therefore materially contributes to the goals of government, be it through efficient spending that maximizes "the bang for the buck"; through timely availability of inputs required for public services; through quality inputs that can raise the level of satisfaction of users of public services; or by spending public money fairly and transparently, which can increase public trust in government. The Polish government spent 11.2 percent of GDP on public procurement in 2017, slightly lower than the OECD average (12 percent) (OECD, 2019), and this increased to an estimated 12.6 percent of GDP in 2019. Of this, 8.9 percent of GDP was the value of contracts awarded under the Public Procurement Law (PZP), while the remainder was issued based on exceptions from the PZP.² For example, in 2019, public procurement amounting to an estimated 1.5 percent of GDP was for contracts below the minimum €30,000 EUR threshold, with an additional 2.6 percent of GDP awarded for contracts that were given exemptions for other reasons.. The total value spent in the period of 2010 and 2020 is estimated at Zl 2,646 billion (US\$ 697 billion in 10 years) (OECD, 2019; World Bank, 2021).

The legal framework for public procurement in Poland was adopted following entry to the EU in 2004, and changes introduced in 2008 sought to increase the efficiency of public procurement. The Public Procurement Law also implements relevant EU directives (Classic Directive 2014/24/EU, Sectoral Directive 2014/25/EU, Defense and Security Directive 2009/81/EC and Remedies Directives) and



is also bound by other acts of European law. In April 2008, incentives were introduced: Using procedures other than open tenders, where justified; application of non-price criteria, where desirable; application of green procurement; application of social clauses; promotion of innovations; and support of the SMEs for electronic procurement, though the impact of these incentives on procurement practices is assessed to have been limited. To increase efficiency, additional adjustments were introduced to the legal framework, including making mandatory the use of nonprice criteria (since 2013); applying of certain social clauses (e.g., obligation to hire workers on an employment contract); examining abnormally low prices; partitioning the procurement; electronic communication (the implementation of the 2018 Directives); and direct payments to subcontractors in the event of unlawful non-payment by the general contractor.

A new Public Procurement Law (approved in September 2019) came into force on January 1, 2021, replacing the previous act that had been in force since 2004. The law implements thresholds and other regulations of the latest EU Directive 2014/25/EU, among other changes. The legal framework establishes one of the most open and transparent public procurement systems in Europe. The key body responsible for regulating and overseeing public procurement as well as providing public procurement data is the Polish Public Procurement Office, "Urząd Zamówień Publicznych" (UZP).

The new Public Procurement Law mandates the preparation of four-year State Purchasing Strategies (SPR). The first SPR, which will be implemented over the 2021–25 period, makes a priority of ensuring that public procurement is instrumental in achieving key strategic policy objectives — including supporting sustainable and innovative procurement — and improve access of micro enterprises and SMEs to the public procurement market. The Ministry of Economic Development, Labor and Technology is the custodian of the SPR.

The SPR currently under development will set key strategic policy objectives of the Government. The strategy will address key public procurement bottlenecks and systemic issues affecting achievement of value for money including innovative and sustainable procurement approaches and will provide guidance to public administration and contracting authorities at central level. The four main objectives are:

- 1) professionalization of public procurement;
- development of MSME potential and access to public procurement
- 3) support to sustainable and innovative procurement; and
- enhancement of health aspects in public procurement including during COVID-19 pandemic.

GREEN PUBLIC PROCUREMENT

While green public procurement (GPP) may have started out as an "alternative" procurement approach, it is now recognized as an essential element of modern procurement systems. Countries first started integrating environmental considerations into public procurement over twenty years ago, mainly in Europe and East Asia.

Poland has developed the legal framework for GPP, in particular by transposing the relevant EU regulations. The authority in charge of GPP policy is the Public Procurement Office (PPO). Since 2007 PPO developed four Action Plans on Sustainable Public Procurement (APoSPP). The initiatives set out in APoSPP contribute to achieving the goals set out in the Responsible Development Plan adopted in 2016, which sets new directions for the state's activities and new incentives to ensure the Polish economy's stable development in the short and long term. It emphasizes the important role of public procurement in supporting responsible development aimed at increasing the competitiveness of the economy, taking into account social responsibility and environmental issues.

Since 2016, the PPO has been monitoring the application of social and environmental clauses in public procurement. To encourage procuring entities to support green procurement approaches, the PPO translated and made available on its website the European Commission environmental criteria for

several product and services categories, including dissemination of GPP guidance and good practices. As part of the annual reports on awarded contracts, contracting authorities are required to indicate the number and value of contracts in which one of the green clauses was applied. The statistics on the application of these clauses clearly differ from the goals set in the subsequent APoSPP. The last APoSPP for 2017-20 assumed the use of environmental clauses in 25 percent of procurements. Meanwhile, data shows that the environmental clauses were used in only 1 percent of tenders (in terms of number of contracts) and 3 percent of value. Furthermore, in 2017, a study on the state of sustainable procurement in Poland and the use of social clauses and green criteria was carried out on behalf of the PPO. Telephone surveys and an examination of almost 500 randomly-selected tender documents indicate that performance in both areas was weak. It also indicated that for green procurements, there is a strong need for further enhanced promotion of GPP benefits, prioritization of green products and services, proactive stakeholder and market engagement including professionalization efforts.

STRATEGIC PROCUREMENT ANALYSIS

The conceptual framework

The conceptual framework is comprehensive and utilizes data on all regulated public tenders, capturing detailed information on tendering procedures, stakeholders, and tender results (De Oliveira et al, 2019). The empirical analysis follows economic theory, exploring the impacts of auction design, market structure, and company characteristics (e.g., size), as well as public administration research on the effects of administrative capacities. Nevertheless, the identification of causal effects is challenging, and descriptive and explanatory quantitative models are utilized. A detailed methodology description and the key variables used are presented in Appendix A.

- A. The analytical framework consists of 2 key components that work best together but can also be deployed independently:
 - i. public procurement market overview
 - ii. price modelling
- B. The main outcome variable used in the analysis is value for money, which is defined as the quality of goods, works, or services obtained for a given procurement price. Value for money can improve because a given quality is achieved at a lower price or because a higher quality is achieved at a given price, or both. Increasingly, value for money is not measured merely in terms of acquisition price and acquired quality, but more broadly applying life-cycle costing approaches (Saussier & Yukins, 2018). As measuring quality is difficult, most notably due to lack of comparable data across widely differing sectors, the relative price of a contract is used as the key dependent variable for the analysis. The choice of the dependent variable rests on a set of important assumptions that are described in Annex 4.1. Relative prices capture the discounts companies offer in comparison to the reference price of the tender or auction (Coviello & Mariniello, 2014). Relative prices are defined as

Relative price = actual contract value / estimated lot value

C. The explanatory variables are selected to capture all major phases and actors of the process while also incorporating structural factors. Importantly, it includes policy-relevant factors that can be influenced more or less directly by policy interventions (Table 4.1, Annex 4.1 for a more detailed description) (Fazekas & Blum, 2021). In order to help target policy decisions, explanatory factors are organized into two main groups: those that can be directly influenced through policy (e.g., length of advertising a tender) and those that can only indirectly be influenced by policy makers (e.g. number of bidders). Nevertheless, in tenders, these factors often appear in combinations. This gives rise to additional variables, such as the locations of buyers and the suppliers, which is often an important factor determining prices.



Group	Definition	Examples	Туре
Market characteristics	The technological and competi- tive structure of the market	 Number of potential suppliers Technological complexity 	Structural
Tender specifications	The conditions for bidders to participate in a tender	Length of advertising bidsFinancial conditions of participation	Factors that can be influenced directly through policy
Buyer characteristics	Level of administrative capacity of the buying office or agency.	 Average time taken for evaluat- ing bids Buyer type-specific regulations 	Factors that can be influenced directly through policy
Bidder/supplier characteristics	Company productivity and capacity.	 SME bidder and winner Company headquarters location 	Factors that can be influenced indirectly
Bidding outcomes	Intermediate and final results of the tendering process	 Number of bids submitted Annual winner market share (deciles) 	Factors that can be influenced indirectly

Table 4.1 Summary of main groups of explanatory factors used in the analysis

Source: World Bank.

Data

The analysis uses a rich dataset. The dataset combines observations from Tenders Daily Electronic $(TED)^3$ and the national Public Procurement Bulletin⁴, where relative price information was non-missing, covering the period of 2010-20.^{5,6} It contains data on 2,836,378 unique public procurement contracts, awarded in 1,350,037 unique tenders, amounting to Zl 1,248 billion of public procurement spending during the period analyzed. This represents 48.5 percent of the total public procurement spending in Poland over the past 10 years (OECD, 2019; World Bank, 2021).⁷

Descriptive statistics and linear regression methods are deployed to measure how different factors affect relative prices. Procurement method, seasonality, length of submission period, framework agreement, number of bidders, number of different items bought, supplier-buyer location, decision period length and other bidding outcomes affect relative price. Close to 45 percent of the contracts were for goods, 25.92 percent for services, and 12.93 percent for works (Figure 4.2). Most purchased goods (32.5 percent) were medical equipment and pharmaceutical products (28.83 percent). Services showed more diversity; however, training and education services related markets were more frequent (10.77 percent and 8.73 percent). More than half of the works were related to civil engineering work (53.81 percent), close to one-fifth was general construction work (18.7 percent). In terms of total value of spending, works represent 34 percent of total expenditure, services represent 24 percent, and goods 22 percent (Figure 4.3). The spending structure of the 10 largest markets is depicted in Figure 4.4.





Source: TED; national public procurement bulletins. Note: for 16 percent of contracts item type information was missing







The number of contracts during the analyzed period follows a declining tendency after 2014, reaching a low point in 2017 with 122,793 awarded contracts. There was an increase afterwards, and the number of contracts stagnated in 2018 and 2019 (Figure 4.5).

Meanwhile, a different trend is observed in the spending volume (Figure 4.6). Public procurement spending was significantly higher in 2011 and 2014 (close to national parliamentary elections), with the value significantly lower in other years (32 percent–65.7 percent). The volatility in public procurement spending as reported in budget statistics is con-







Figure 4.4 Spending structure, Poland 2010 – 2020





siderably lower, albeit still substantial (Figure 4.1). It confirms, however, that spending dropped considerably in the 2016–18 period.

Figure 4.6 Spending volume over time, Poland 2010-2020



Note: 2020 partial data.

PURCHASING SYSTEM REVIEW

The supply positioning matrix offers actionable insights to design procurement strategies and policies for improving results (Figure 4.7).

Routine categories (Quadrant A) of low value and low risk require simple procurement procedures, with efficiency as the main driver. In Poland, 135 categories of a total of 431 belong to this classification, yet the total value of transactions is only Zl 1.7 billion in ten years, or 0.07 percent of the total. Given the high volume of transactions with simple requirements, one strategy could be to employ automated transactions following built-in rules in an electronic system. These types of categories are typically expendable inputs to public services and timely delivery is important to achieve intended results of procurement. The goal is to devise a strategy with the lowest transaction cost possible, so that the price of the purchased goods or services does not end up higher than the cost to the government to buy it. A second goal for an optimal strategy for routine categories is to free up specialized procurement resources so that they have time to work on more complex, critical procurement. Procurement of routine items in quadrant A can be very time-consuming and demanding without the right strategy. Although only 0.76 percent of the products purchased are in this quadrant, it can result in some small-value bidding processes that divert resources from more complex procurement tasks.

Categories of high volume and low risk (Quadrant B) could benefit from centralized procurement strategies, such as Framework Agreements, to ensure cost-effectiveness for the government.



Figure 4.7 Supply positioning

Source: World Bank; TED; national public procurement bulletins.

Given that the government is an important buyer on these markets because of the value it purchases as well as the high number of suppliers, the government will benefit from a highly competitive approach to procurement and by actively sourcing categories to ensure buyers and end-users get the best deal. This is the area in which the government should leverage its purchasing power to try and extract better value and improve average quality. 91 market categories, 58.36 percent of contracts, and 13.33 percent of total procurement spending fall into this group. A central strategy for the procurement of items in Quadrant B, even if implementation is decentralized, can help the government get more value for money overall. Framework agreements added up to only a small fraction (0.62 percent) of all procurement during 2010–20 and the analysis shows that this represents only a very small percentage of all categories that could potentially be utilizing this type of procurement method. Framework agreements were mostly used for medical equipment. Consequently, there is ample room to utilize this tool for the markets where it is a good fit to improve results and maximize the bang for the buck.

The main guiding principle for specialized (Quadrant C) and low-value, high-risk categories that are volume-conscious is to improve ease of transactions. Strategies to maximize efficiency for these categories include

- making upfront effort on the design and specifications for the procurement activity toward longterm contracts; and
- ensuring stocks are available for a determined period.

These categories comprise the most difficult procurements because the Government is not an attractive buyer, but the products are specialized. Thus, if the Government does not ease participation of bidders, the best suppliers — such as manufacturers — will simply not bid. The government may then end up purchasing from middlemen. A customized strategy for these products that considers facilitating participation, minimizing red tape, and paying quickly will go a long way in contributing to sourcing from the better suppliers and maximizing results. 0.05 percent of contracts and of total spending are classified as specialized items or services. **Critical categories (Quadrant D) that are characterized by high value and high complexity would require the allocation of skilled resources.** Given the inherent risks, due to size and complexity, it is recommended that the majority of buyers' time focus on procuring and managing implementation of these contracts. The highly technical nature of these categories — e.g., construction work and health services — require dedicated review of price and supplier performance. In Poland, 2010–20, this quadrant comprises 174 categories (40.37 percent of all categories), adding up to 86.4 percent of the total awarded value. This is where the procurement officers and managers should focus their time and attention.

Relative prices vary over time. They are relatively stable over the 2010–16 period, while after 2016, contract values usually exceeded estimated bid prices on average by 4–8 percentage points (Figure 4.8). Average relative price is mostly constant across the country, ranging between 0.9–0.94, only the central region operates with some overruns (1.04). Północno-Zachodni region has the lowest average relative price (0.86) (Figure 4.9).

Figure 4.8 Average relative price



Figure 4.9 Average relative price, by region



Sources: World Bank; TED; public procurement bulletins. Note: 2020 is an incomplete year.



Figure 4.10 Distribution of average relative price by supplier



Figure 4.11 Distribution of used tender selection method by markets



Figure 4.12 Market entry rate by CPV division

Only 0.5 percent of suppliers have relative prices that are higher than 1.5 on average (Figure 4.10). A consistently higher average contract value than the estimated price suggests that the supplier may enjoy a dominant market position, which it can use to extract higher prices. If it occurs on a regular basis for particular buyers, they might need to consider engaging further suppliers to break market dominance and harness competition.

Lowest price criteria are usually used for volume products, while MEAT (Most Economically Advantageous Tender) is more beneficial for specific, higher value products (Figure 4.11). The former selection method was used for 60.96 percent, the latter for 39.04 percent of the contracts. This ratio appears also in most markets (e.g., telecommunication services,) or even a more balanced, almost equal distribution can be observed for some others (e.g., medical equipment). In the categories of pharmaceutical products, and civil engineering work, the lowest price criteria was favored (65.54–69 percent), while for training services, MEAT was more commonly used (61.5 percent).

The market entry rate varies by markets (Figure 4.12). The market entry rate is defined as the average share of new companies (firms that have not participated in procurement processes prior to the award year). It is more difficult for new companies to enter a large market, like civil engineering works, construction works, and pharmaceutical products (where average annual spending ranged between Zl 10–31 billion). The average entry rate for new companies was 39 percent. This rate gradually increases for medi-



Sources: World Bank; TED; public procurement bulletins. Note: represents average share of new companies on a certain market.

um-sized markets with less specialized products (e.g., legal services, financial and insurance services, education and training services). New companies in smaller markets, with a lower volume of products and services (community health services, school catering, quilted textile), have the highest chance (85.1 percent). In the future, adding purchased item quantity to the obtainable variables could give more detailed insights on distribution of procurement packages, turnaround times, their share in the total spending and number of contracts.

Following the ABC supplier analysis methodology, 99.5 percent of suppliers had lower than 80 percent of market share - 0.83 percent on average — accounting for 99 percent of total spending (Figure 4.13). These markets cover the most widely-purchased goods, works and services, such as construction works, pharmaceutical products, medical equipment, food suppliers, training, and business and cleaning services. Of the total number of suppliers, 0.02 percent had a more dominant position, concentrating 85.9 percent of market share. These included post and courier services, drilling services, pipeline services. Of the total number of suppliers, 1.6 percent of suppliers are monopolies, accounting on average for 99.6 percent of market share in markets such as non-drinking water, radio broadcast transmission services, and space transport services.

Figure 4.13 Spending volume by supplier market share category



Source: World Bank; TED; public procurement bulletins.

Bidding above the estimated price occurred in 43 percent of contracts, showing similar patterns in each of the above-mentioned supplier category groups by market shares. It was especially prevalent on the market of works for complete or part construction and civil engineering work, site preparation work, road transport services, engineering services, repair and maintenance services, computer equipment and supplies, pharmaceutical products, and medical equipment (Figure 4.14). Over half of such contracts (25 percent and 29 percent) were awarded by public bodies and regional authorities.

Figure 4.14 Percent of contracts bidding above estimated price by market



Engineering services

Source: World Bank; TED; public procurement bulletins.

STRATEGY PACKAGE

Different strategies to achieve the savings potential in public procurement are assessed using a relative price model. An explanatory model for relative prices of goods, works, and services based on the combined contract-level dataset collected from UZP and TED is used to identify and quantify savings potential throughout the whole public procurement

market while also appreciating the different strategies suggested by the above supply matrix. Outliers in relative prices were removed from the analysis: Relative price was bounded between 0.3 to 3 (Figure 4.15). The sample also contained gross contract values, reflecting reduced and standard VAT (spikes at 1.08 and 1.23 in Figure 4.15), which is a large-scale error in the dataset that cannot be precisely addressed. A VAT error variable is included in the regression to control for the error when it is likely to occur, at relative prices of 1.08 and 1.23. able factors and assuming only readily-achievable policy changes. Some of the considered changes do not require altering the existing regulatory framework, and instead rely on small tweaks to procurement process design and implementation decisions, e.g., month of spending, procedure type, or advertisement period. Such savings potential is considerably below predictions obtained using unit prices, signifying that using relative prices as the outcome of the analysis is likely providing the lower bound of impacts from the proposed policy changes.

Figure 4.15 Relative price distribution, trimmed



Note: Outliers (values below 0.3 and above 3 were removed; further investigation of such data errors is recommended.

POTENTIAL SAVINGS SCENARIOS

The prices under alternative policy scenarios are estimated using advanced statistical modelling techniques. This allows one to estimate how much the government would have paid for a particular product had it used a more cost-effective procurement strategy. The estimation is based on the price modelling regressions that capture the associations between various policy relevant factors and relative prices. Suggested improvements to procurement policy are presented in Table 4.2, and the estimated impact is presented in Figure 4.16.⁸

Potential savings are estimated at about 5 percent per year, or a cumulative Zl 24 billion for the 10-year period analyzed using the underlying model (Figure 4.16). The total predicted savings are achieved through only the most readily-influence-

Figure 4.16 Total savings associated with each intervention, 2010 – 20



Source: World Bank.

The largest price impact can be achieved by improving bidder participation: a Zl 67.9 billion decrease in costs across the government is predicted if single bidding is cut by about half by increasing the bidder number to three bidders (Figure 4.16). Importantly, the high prevalence of single bidding is not due to procedure type choice, as most such tenders followed an open procedure: 0.5 percent of contracts with a single bid were direct contracts, 5 percent were contracts with single source method, while 76 percent were awarded through an open procurement procedure. In a related policy intervention, decreasing buyer spending concentration is similarly impactful: Zl 13 billion savings is predicted if half of contracts are moved from high-spending concentration buyers (the top 3 highest deciles of buyers) to lower-spending concentration buyers (7th decile).

Table 4.2 St	immary of s	savings ir	iterventions
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	procedure type	move 70 percent of contracts in any non-open procedures to fully competitive procedures
Can be directly influenced through policy	framework agreement	reducing the use of framework agreements by 50 percent
	electronic auction	Move 50 percent of paper-based contracts to electronic auctions
	advertisement period length	increase advertisement periods: eliminate short advertisements (1 – 39 days) by increasing them to more than 40 days
	month of spending	smooth spending between Sept and Dec by reallocating 50 percent of contracts to a nearby cheaper month (Jan)
	product bundling	moving 50 percent of more heterogeneous product bundling to the $2^{\rm nd}$ category (2 products)
	organizational quality: avg. deci- sion making period length (days)	moving 70 percent of tenders in the medium and longest quintiles to the $2^{\mbox{\scriptsize nd}}$ quintile
	organizational quality: avg. failed tenders %	move all contracts from lower half success rate organizations (less than 99 percent) to highest success rate organizations (100 percent)
Can be indirectly influenced	bidder number	moving 50 percent of 0 – 2 bidder contracts to 3 bidder contracts
	buyer spending concentration	move 50 percent of contracts from high spending concentration buyers (the top 3 highest deciles of buyers) to lower-spending concentration buyers (7^{th} decile)
	market concentration	move 50 percent of contracts in high concentration markets (the top 3 highest decile market) to lower concentration markets (4th highest decile)
policy	supplier-buyer location	increase market share of local suppliers (i.e., same state) by 50 percent
	share of bids received from SMEs	increase share of SME participants by 50 percent
	supplier specialization	moving 50 percent of contracts supplied by highly specialized suppliers (1&2 lowest deciles) to less specialized suppliers (3^{rd} decile)

Expanding the use of competitive procedure types is predicted to have sizable savings potential too: Zl 12.3 billion savings could be achieved if 70 percent of contracts in non-open procedures are moved to fully competitive procedures. Furthermore, improving tender advertisement — eliminating short advertisements (1–39 days) by increasing them to more than 40 days — could contribute to a further Zl 8 billion price reduction.

Factors that can be influenced directly through policy

Changes in policy parameters can generate important savings through changes in the prices contracted. Buyers with higher rates of success were able to procure at lower contract values in 2010–20. Agencies with a higher success rate of procurement processes saw lower relative prices, according to the regressions analysis (Figure 4.17). The success rate is defined as the annual average of successful tenders, which are procurement processes that resulted in a contract that was signed, as opposed to processes that failed because no bidder turned out, wherein all bids were rejected or other reasons for failure. A contract was awarded for 99 percent of all items or services put out for procurement. The government could save an estimated Zl 2.5 billion if agencies that underperform in this area were to increase their success rate. This indicates that suppliers can offer discounts to more reliable buyers. This is also consistent with a broader explanation suggesting that higher success rate agencies have higher capacity along dimensions that cannot be observed in the dataset; thus, success rate can also be a proxy for administrative capacity.





Procuring entities that are more efficient in the process of evaluating bids and awarding contracts pay lower prices, on average, than those that take more time to complete these tasks (Figure 4.18). The Government could save 0.25 percent (Zl 6.67 billion in ten years) if the process for bid evaluation and contract award is faster and less cumbersome. This is in line with estimates on a sample of other European countries, which find that procuring entities that are quicker in bid evaluation tend to attract more bidders (Fazekas, 2019). To achieve this, a key recommendation is to adopt electronic procedures to complete this processing stage, as it can significantly cut times, particularly when inter-agency approvals and clearances are needed. Another key recommendation is to allocate resources more strategically and beef up bid evaluation teams for complex, high-value procurement, or when a large number of bids is expected. Perhaps multi-agency task forces or committees for the most critical procurement can help to turn around bid evaluation faster and with higher-quality technical work.

Figure 4.18 Efficiency in bid evaluation and award had an impact on relative prices



Source: World Bank

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In particular, "restricted" and "negotiated with publication" are the methods that are likely to render prices lower if bid evaluation and contract award is faster. Even when controlling results for the number of bids received, which has a material impact on the time to evaluate bids, this procurement method takes significantly longer than all others. In addition, when bundling multiple items into one, single procurement process, concluding bid evaluation and awarding individually for each item might speed up the process overall. The data indicates that on multiple-item procurement, one or more items may be held up until the evaluation of all items is completed. This could be because of external clearances and approvals that are required for contract award and the back and forth that would result if the award were to be split up. But this strategy might be worth exploring on specific cases, as the impact on prices is significant.

Assisting buyers that underperform on the task of bid evaluation is another possible intervention that could yield savings. Results are non-linear across buyers even when comparing similar complexity items procured using the same method. A target intervention that focuses only on the underperforming buyers will increase the effectiveness of an assistance or training program.

Unsurprisingly, the procurement method has an impact on prices: Any non-open procedures resulted in higher relative prices during 2010-20 (Figure 4.19). The Polish Government could save an estimated 0.47 percent (Zl 12.27 billion per year) by increasing the value procured through open procedures. Overall, contract complexity and completeness are the key characteristics defining whether rule-bound decision-making in open auctions or less regulated direct contracting and negotiated procedures produce better results (Bajari, McMillan, & Tadelis, 2009). Thus, the impacts crucially depend on matching the right rules to the right tenders and contracts (Parrado, Dahlström, & Lapuente, 2018). During 2010–20, already 76 percent of contracts were awarded by open procedures, which amounted to 63 percent of the total value procured in the period, therefore suggesting some room for improving efficiency.



Figure 4.19 Effects of procurement methods on relative prices

Source: World Bank.

End-of-the-budget-year pressures to finalize procurement tenders raise prices. Public procurement during the September – December period is typically more expensive Poland (Figure 4.20). The Government of Poland could save an estimated 0.21 percent (on average Zl 5.4 billion annually) with better procurement planning that would avoid bunching up procurement at the last quarter of the year.





Source: World Bank.

Poland has a balanced schedule of procurement spending throughout the year. Poland procures a large share of contract value during the first quarter of the year (23.1 percent), a quarter that is typically characterized by lower procurement shares in other countries; and even more so when framework agreements are a small share of public procurement. Most of the value is typically procured in the third quarter, with 30.2 percent of the total. Experiences from around the world show that the last quarter of the fiscal year may face a substantial change in the profile of products purchased, and an increase in procurement of higher value items, such as vehicles and computers, as governments rush to spend the available budget. In Poland, the government spends it mostly on civil engineering works, construction works, site preparation work (summing up to 15 percent in that quarter), medical equipment (16.18 percent), and pharmaceutical products (11.96 percent). A relatively flat spending volume in the last quarter of the year, coupled with markedly higher prices, suggest that bringing procurement forward in the year can generate savings.

Figure 4.21 Seasonality and relative prices

A. Predictive margins with 95% Cls





B. Monthly total awarded value in billion ZI, 2010-20

Source: World Bank.

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Month of purchase

Factors that can be influenced indirectly through policy

Changes in indirect policy parameters - such as using electronic procurement methods - can also affect prices. Procurement processes that had a higher bidder turnout resulted in lower prices, and the government of Poland could save an estimated 2.6 percent (Zl 67.9 billion over 2010-2020) if it received a higher number of bids per tender (Figure 4.19). Competition for public contracts has the highest effect on prices among the procurement policies and strategies that can be influenced indirectly. The average number of bids received is relatively low at 2.3. The use of electronic procurement can be a powerful tool, in addition to the benefits for bidder participation and internal processing. A study assessing the impact of e-procurement in Chile, for example, suggests that the increase in the number of bidders and the corresponding decrease in bid prices is the key driver in cost savings for the Chilean central procurement agency (ChileCompra), amounting to 2.65 percent of total spending (Singer, Konstantinidis, Roubik, & Beffermann, 2009).

A mix of strategies, including training and outreach to suppliers, can help improve bidder turnout. These include training programs, minimizing the red tape for participation, shortening times for payments, and customized market approaches based on spend value and complexity. An outreach effort to potential suppliers along with a training offer on how to prepare responsive bids could contribute to new entrants to the public procurement market. Confidence on how to prepare a bid that will not be rejected by the government can go a long way in motivating a supplier to try to sell to the government.

Furthermore, reducing documentation requirements for participation can help motivate potential suppliers to bid for public contracts. This is a frequent complaint from companies selling to governments around the world as it raises the costs for participation and the risks for success. Electronic procurement could help by eliminating requests for documents issued by the government, as the requests could be automatically verified by integrating government information systems. The time it takes to pay an invoice is the number one reason cited by bidders for not selling to governments. For that reason, shortening this process together with disclosing the data to show the timeliness of payments is recommended, as perceptions of payment delays can be hard to dispel and might keep potentially good suppliers away from public procurement.

Encouraging SME bidders to participate in public procurement can lower prices, according to the analysis of TED data (Figure 4.22). Procurement notices available in the national electronic procurement system, the Public Procurement Bulletin, will be included in a subsequent version of the analysis and might change the results.

Figure 4.22 Impact of bidder turnout on relative prices

A. Predictive margins with 95% Cls





B. Percent of volume of processes by number of bidders, 2010 – 20



Note: in 4 percent of the contracts, bidder number was not indicated

Spending concentration at the buyer level resulted in higher prices for the government. Even small differences on the level of concentration of award to one or few bidders results in lower prices (Figure 4.23), and thus the Government of Poland could save an estimated 0.5 percent if buyers could further diversify their supplier base and break up monopolies and oligopolies (Zl 13.2 billion annually, on average).

Figure 4.23 Effects of share of SME bidders on relative prices

A. Predictive margins with 95% CIs



B. Awarded value in billion ZI, by SME bidder share category, $2010\mbox{--}20$



Source: World Bank.

The main supplier of a buyer was awarded on average 27.4 percent of the total value over a fiveyear period. Whilst this does not apply to all government agencies, there are a few that might confront monopolistic or oligopolistic powers. Consequently, targeted interventions at a few buyers could bring quick results in terms of prices.

Concentration at the level of markets also had a substantial impact on prices. Markets that were dominated by one or a few suppliers showed higher contract values during 2010–2020. Savings potential is estimated at 0.02 percent (Zl 0.44 billion over ten years) if the largest monopolies and oligopolies were broken up and the supplier base was more diversified (Figure 4.24).

Figure 4.24 Effects of buyer-level spending concentration on relative prices

A. Predictive margins with 95% Cls







Sources: World Bank; TED; public procurement bulletins. Note: On average, maximum share spent on one supplier was 27 percent

About 28.3 percent of the total value went to suppliers with the highest market concentration. The default approach of doing an open bidding will not be enough. When it comes to markets with higher levels of concentration of awards to one or a few suppliers, sometimes a very large number of procurement processes for a certain product are awarded to the same supplier. A deeper review of such markets that includes scrutinizing the specifications, bid requirements, and existence of patents will be required to improve results. And the potential of savings, even for a small number of markets, shows that there is enough return on investment to justify the additional effort.

Local suppliers, or those located in the same Department of the buyer, offered more economical prices on public procurement than outside suppliers (Figure 4.25). Increased participation of local suppliers in public procurement could generate potential savings of 0.012 percent (Zl 0.32 billion per year on average). Local suppliers were awarded 16.75 percent of the total value over the 2010 – 20 period. Development and implementation of an outreach program to local suppliers, along with training offers on how to identify and to prepare responsive bids for public contracts, could raise the competitiveness of local suppliers and, in turn, lower prices.

Figure 4.25 Impact of market concentration on relative prices





B. Awarded value and percent of market share of main supplier, $2010\mathchar`-20$



Sources: World Bank; TED; public procurement bulletins.

Figure 4.26 Local suppliers and relative prices in public procurement

A. Predictive margins with 95% Cls



B. Awarded value in billion ZI, by buyer-supplier location, 2010 – 20 $\,$



Sources: World Bank; TED; public procurement bulletins.

GREENING PUBLIC PROCUREMENT STRATEGY

To construct an effective green procurement strategy, the government could consider incorporating good practices along the six pillars included in World Bank's Green Public Procurement Pillars and Good Practices Framework. This is built around six pillars that allow for a customized, non-linear yet balanced approach:

- 1) building the business case;
- 2) enabling framework;
- 3) market engagement;
- 4) professionalization;
- 5) implementation tools; and
- 6) monitoring tools.

For an effective GPP strategy, the government could consider a combination of good practices that address Poland's main design and implementation challenges. To overcome potential re-

sistance and set up realistic implementation plans, the government will need to build the business case for GPP. To this end, the government could consider launching GPP communication campaigns; identify and support GPP champions; identify entry points for implementation; and mobilize financial resources. An enabling framework helps transforming the GPP from an ad hoc activity to a national priority. This presupposes a sound institutional framework; a well-identified policy space; a clear legal basis; prioritization and the development of an implementation plan. Designing realistic tenders that attract a market response while driving green innovation market engagement is critical. The government could assess market readiness; provide notices to the market with sufficient lead time; engage in market consultations to design realistic tenders; build supplier capacity; promote SME participation; and conduct innovation procurements.

Building professional competencies for GPP is another critical element of a successful GPP strategy. To achieve this, the government would need to

assess the gaps in these competencies; assess training needs; ensure buy-in from procurers for green procurement; and develop manuals and toolkits for GPP. Organizing trainings in GPP, setting up pilots for green tenders, and fostering peer learning and networking are effective ways to ensure professionalization. Driving organizational change is also critical.

To facilitate GPP and support its adoption at scale, it is necessary to provide implementation tools. Meanwhile, monitoring tools are critical for showing the benefits of GPP and identifying areas for improvement. The GPP strategy would need to be supported at an institutional level and the needs assessments would need to be coordinated. Framework agreements, catalogues, the development of environmental criteria for priority categories, and endorsement of eco-labelling schemes could also facilitate GPP. Life-cycle costing tools will help take informed decisions. Joint procurements, leveraging e-procurement, and increasing the use of on-line platforms can also foster adoption of GPP. For monitoring purposes, a monitoring plan, a baseline assessment, and identifying data collections methods are critical. Selecting indicators and defining targets can help drive GPP, while tools that allow the

estimation of environmental benefits can support the drive to ensure buy-in for GPP. Analyzing and effectively communicating the results and benefits of GPP are also powerful tools.

POLICY CHOICES FOR SAVINGS IN PUBLIC PROCUREMENT

The strategic procurement analysis unveils opportunities to save an estimated 4.9 percent of annual public procurement spending.⁹ These savings could be achieved without introducing new laws or modifying existing ones, via a combination of policies and strategies on how to implement procurement and a phased implementation. Each of these policies could be implemented separately or in combination with other policies.

Competition can help drive down relative prices paid in public procurement, both in the form of the procedure used and bidder turnout. Strategies that could be designed and implemented systemically include the use of open bidding instead of negotiated procedures, and interventions to boost bidder turnout, both of which could benefit all buyers in the procurement system in Poland.

The existence of monopolies and oligopolies at the market and buyer level, the success rate of procurement processes, and the efficiency of bid evaluation and contract award all impact relative prices. Addressing the issues of monopolies and oligopolies at the buyer level as well as improving efficiency of bid evaluation could be very effective in achieving savings when targeting underperforming buyers. These interventions represent some of the low-hanging fruits.

Lowering end-of-the-year spending when pressures to close the books at the end of the financial year are high represents an effective saving strategy. About one quarter of annual procurement contract value is awarded in the last three months of the year when prices are considerably higher than

in earlier months. Shifting some of this expenditure earlier in the year or allowing contracting processes to span over financial years would unlock savings for the government.

Buying more diverse products (at least two different kinds) in the same tender could also be an effective strategy to save money. This is especially true for high-volume, low-complexity items, which currently see their demand spread across many different buyers. In the sample, 91 percent of the contracts represented homogenous contracts in terms of product bundling, purchasing only one type of product.

Finally, an outreach program to government suppliers could also help improve results. Private sector companies as well as many high-performing public sector procurement systems work closely with suppliers to bring results to buyers. Therefore, easing participation requirements based on a risk-management model and training bidders in preparing responsive bids could also be an effective strategy in achieving savings. The most impactful strategies and their corresponding savings potential are summarized in Tables 4.3 and 4.4. These strategies are grouped by elements that can be directly or indirectly influenced by policy.¹⁰ These savings predictions are derived from the regression coefficients (i.e., the price sensitivity of each policy-relevant factor) and the magnitude of the proposed change.¹¹

Collecting data on itemized unit prices, units of measurement, and quantities could help a more indepth analysis of savings potential. An enhanced e-procurement system could consider collecting and analysing this type of data for informing policy. There are still some shortcomings related to the Polish public procurement data, even if it is among one of the best systems in Europe (Fazekas, 2017)¹². Of central importance for strategic sourcing analysis is the availability of unit prices, which is not readily available in the case of Poland.

Table 4.3 Policies and strategies to save money on public procurement—Directly impacted by government policies and strategies

Variable with impact on Contract value	Total savings in Poland (billion 2019 ZI)	Recommended policy or strategy
Procurement method	12.27	 Encourage the use of fully competitive procedures by streamlining its process for evaluating bids and awarding contracts; Carry out a survey with suppliers to gather insights into hidden costs to bid for government contracts.
Framework agreement	8.06	 Reduce the use of framework agreements where they do not result in sufficient savings compared to one-off purchases; Improve scope and design of framework agreements where they can bring about savings.^a
Time allowed for bid preparation	4.41	Grant more reasonable times for bidders to be able to prepare more responsive bids.
Electronic auction	7.25	Expand the use of electronic procurement through UZP platform, adding buyers to the system
Seasonality	5.4	Minimize procurement between the period of September and December.
Number of items bundled on a process	0.15	Consolidate items supplied by companies of similar markets, reducing the number of procure- ment processes.
Time spent on bid evaluation and award (days)	6.67	 Implement electronic processes for necessary paperwork to award contracts; Strategically appoint resources for procedures with many bidders; and Simplify and standardize bid evaluation tasks.
Level of success of process	2.51	 Target intervention at relevant buyers to simplify bid requirements; Create training programs to bid evaluation committees of lowest performing quartile buyers; Develop standard bidding documents.

^a The use of framework agreements could lead to potential savings on certain markets, such as pharmaceutical products, while it can increase relative prices on other markets such as health services and post and courier services.

 Table 4.4 Policies and strategies to save money on public procurement—Indirectly impacted by government policies and strategies

Variable with impact on Contract value	Total savings in Poland (billion 2019 ZI)	Recommended policy or strategy
Number of bidders	67.9	 Offer training program to suppliers on how to bid for government contracts; Minimize documentation required to bid for low complexity items; Shorten time spent to pay invoices, Create procurement strategies based on the supply positioning matrix (later discussed at this report); Carry out a survey with suppliers to gather insights into hurdles to bid for public contracts.
Monopolies and oligopolies at buyer-level	13.19	Deliver a training and advisory program for buyers with high levels of awards to one or few suppliers.
Monopolies and oligopolies at market level	0.44	Develop targeted procurement strategies for products that show monopolistic or oligopolistic characteristics in public procurement.
Supplier and buyer at the same location	0.32	 Offer automated and online alerts to sales opportunities for local companies; Offer training programs to local companies in preparation of responsive bids.
Share of SME bidders	0.65	Encourage larger companies to bid by tailoring specifications for larger and more capable companies.
Supplier specialisation	3.3	Procure related but different products in bundle making larger, more diversified companies more likely to participate.

PROPOSED FUTURE WORK

Relative price analysis can help identify a range of actionable policies to achieve savings with some degree of confidence. Unit prices tend to be a more reliable measure of value for money than relative prices (e.g. De Oliveira et al, 2019; Kohler et al, 2015). Hence, a targeted survey of unit prices in selected markets could help enhance the analysis. In addition, in the absence of reliable unit price information, one could also consider using alternative analytical techniques and intervention types such as demand management projects or value engineering (SAVE, 2020).

Public procurement in Poland is also expected to serve a range of strategic goals that could

present synergies or trade-offs with prices. Analyzing green and sustainable procurement requirements and scoring criteria on announcements could be done with the help of text-mining algorithms (Rosell, 2021). Such techniques could make it possible to estimate the impact of green and sustainable procurement on market competition and prices, for example. As SME participation is a strategic goal on its own, further analysis could look not only at the impact of SME participation on prices, but also help identify policies that could increase SME participation. Some SMEoriented policies could lower competition, thereby increasing prices. Others, meanwhile, manage to simultaneously increase prices and SME participation (Fazekas-Blum, 2021). Empirical analysis could help identify policies that can simultaneously achieve multiple goals.

Notes

- The definition adopted by the Task Force on Sustainable Public Procurement led by Switzerland (membership includes Switzerland, USA, UK, Norway, Philippines, Argentina, Ghana, Mexico, China, Czech Republic, State of Sao Paolo (Brazil), UNEP, IISD, International Labor Organization (ILO), European Commission (DG-Environment) and International Council for Local Environmental Initiatives (ICLEI) and adopted in the context of the Marrakech Process on Sustainable Production and consumption led by UNEP and UN DESA.
- 2. The report of the President of the Public Procurement Office 2019.
- 3. Available at https://ted.europa.eu/TED/main/ HomePage.do
- 4. Available at https://www.uzp.gov.pl/
- 5. 2020 is an incomplete year
- 6. The dataset includes information on contract value, buyer and supplier identification and names, contract award date, tender dates (e.g. bid submission deadline), procurement method, product classification and procurement categories.
- 7. This represents 45.8 percent of all data
- 8. Please note that the total savings values are extrapolated from the regression analysis which was conducted on a subset of the data to the whole public procurement market. The total contract value captured in the regression models was calculated using micro-data and established its ratio to the total public procurement spending according to the OECD (2.12 percent on average for the 2010-2020 period).
- These savings would amount to Zl 24 billion over a tenyear period.
- 10. It should be noted that the sum of the individual strategies will not add up to the exact total savings percentage potential because of interactive effects among them, such as using more competitive procurement procedures will contribute to increasing the number of bidders.
- 11. The model used to identify and quantify savings potential on public procurement explains 15.4 percent of the variance in relative prices, a robust result for this type of dataset.
- For detailed diagnostics see: https://opentender.eu/pl/ dashboards/transparency.

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ANNEX 4.1 METHODOLOGY

The analytical framework consists of 2 key components, which work best together but can also be deployed independently:

- Purchasing System Review: public procurement market overview, using informative visualizations;
- 2) Strategy Package: regression modelling of unit prices across government.

First, the public procurement market overview or exploration component makes use of simple visualizations to both set the stage for subsequent analysis and provide initial insights into cost drivers. A high-level overview is essential for identifying the scope and boundaries of the analysis such as the amount of total spending, spending break-down by product group (e.g. goods, or more detailed product category such as vehicles) and geography (e.g. main regions of spending), trends over time, and public procurement share in the national budget. In addition, the overview component also begins to unpick major cost drivers by allowing users to explore bivariate relationships in great depth. Most of the main explanatory factors are incorporated already in this component such as the impact of market concentration on prices with interactive functions allowing users to filter subsamples (e.g., high value tenders or a selected region). The analytical tools are kept simple in this component predominantly restricted to simple visualizations and tables without explanatory models and predictions.

Second, the regression modelling of relative prices directly builds on the first component by bringing together all major explanatory factors into a single regression model. Such a comprehensive model allows for system-wide price predictions and simulating hypothetical scenarios. In particular, the following linear regression model for relative prices of products, works or services is estimated at the level of item, work or service purchased:

$$Pr_{i} = \alpha_{i} + \beta_{1} X_{1i} + \beta_{2} X_{2i} + \beta_{3} X_{3i} + \varepsilon_{i}$$

Where Pr_i represents trimmed relative price for the ith item or service purchased;

 $X_{_{1i}}$ stands for the set of predictors that can be directly influenced through policy for the *i*th item or service purchased such as the choice of procurement method;

 $X_{_{2i}}$ represents the set of predictors that can be indirectly influenced through policy for the ith item or service purchased such as the number of bidders.

 $X_{_{3i}}$ denotes the set of control variables accounting for structural factors not amenable to policy intervention for the *i*th item or service purchased such as the year of purchase.

 $\boldsymbol{\epsilon}_i$ stands for the error term of the regression model.

Employing relative prices as a proxy for value for money requires making a set of assumption. First, its validity as a price measure crucially rests on the assumption that the estimated lot price is accurately defined without bias or deliberate manipulation. Given that the methodology for contract value estimation prior to launching a tender is regulated in Poland (Chapter 5 of the Polish Public Procurement Law), the price estimation methodology is assumed to be consistent in theory. In practice, implementation may vary by procuring entity and type of product, nevertheless there is a strong practice of using past similar contract values as benchmarks. Second, as the initial price estimate is based on an assessment of the market and key features of the purchase, it should account for quality and quantity differences when setting the price. Nevertheless, prices in some markets are likely harder to estimate thus cross-market

comparisons may be biased. Third, estimated values do not consider full life-cycle costs such as maintenance costs borne by the user as they are predominantly focused on purchase price. Fourth, contract award values do not account for cost changes due to contract modification during the contract implementation phase or changes in the specifications of the delivered products (e.g. quality changes). If these systematically vary across markets or buyers, estimates may be biased.

Data on unit prices for standardized goods and services, an alternative dependent variable, are not readily available in public procurement data in Poland. Experience with unit prices in other countries and comparisons of unit prices and relative prices suggest that these 2 alternative measures of prices only partially overlap (linear correlation coefficient around 0.5). Unit pricebased modelling may overestimate price impacts of policy interventions due to unobserved quality differences. While this bias is likely less pronounced for relative prices-based modelling. This, however, is more likely to suffer from biases of reference prices orienting bids and reference prices being based on outdated historical prices. At any rate, using relative prices rather than unit prices carry the advantage of being able to model price effects across the whole market not only on standardized goods and services.

The full list of variables used in the Polish analysis are reported in Table 4.2. Each of these policy-relevant variables derive from the literature using qualitative as well as quantitative methods while also being supported by robust economic theory. Interpretation and the relevant literature are discussed in the results section below.

Туре	Group	Variable name
Structural	Market characteristics	Market ID: reflecting product code (CPV code L2)
		VAT (23% and 8%)
		Supply type (G/W/S)
		Year of contract award (2010-2020) ^a
Can be directly in- fluenced through policy	Tender specifications	Month of bidding (January, February, etc.)
		Electronic auctions (Y/N)
		Product method (open, restricted, etc)
		Advertisement period length (days)
		Decision making speed (days)
		Share of failed tenders %
		Framework agreement (Y/N)
		Bundled tenders (product diversity)
	Buyer characteristics	Buyer type (ministry, independent agency, etc)
		Buyer sector (defence, education, health, etc)
		Buyer location (NUTS3 - subregions)

Table A4.1.1 Overview of indicators used for price modelling, Poland

Туре	Group	Variable name
Can be indirectly in- fluenced through policy	Bidder/supplier characteristics	Buyer-supplier from the same region (Y/N)
		Share of SME bidders
		Supplier specialization: number of markets the company supplies (deciles)
	Bidding outcomes	Number of bidders
		Annual winner market share (deciles)
		Annual winner share in buyer spending (deciles)

^a 2020 is an incomplete year.

Market or product group characteristics encompass those factors which describe the technological and competitive structure of the market where the items are purchased from. Most of these variables are in effect structural givens from the perspective of the analysis as they tend to be changing slowly or policy can only influence them at high cost. Procurement markets can be defined as a combination of product codes and geographical codes (Fazekas & Tóth, 2016) which capture fundamental differences, among others, by product complexity and technological characteristics, geographical characteristics (e.g., remoteness), and market concentration.

Tender specifications capture all the conditions defining who can bid, under which conditions and according to which assessment criteria. These variables can be typically directly influenced by policy makers without changes to the legal framework. Tender specifications variables are defined in the tender preparation and bidding stages of the procurement process. Among many, advertising tenders in a widely used, free, online portal tends to lower prices, such as in Italian public works tenders where the effect size is 7 percent higher winning rebates (i.e. discounts compared to the reference price) (Coviello & Mariniello, 2014); or longer term, fixed price contracts are more expensive in Russian sugar purchases while larger volumes lead to lower unit prices (Andrey Yakovlev, Bashina, & Demidova, 2014).

Buyer characteristics-related variables describe the level of administrative capacity in the buying public entity such as a purchasing office or agency (Fazekas, 2017). While many of these characteristics can be directly influenced through policy intervention such as capacity building training, many reforms may be challenging to implement such as giving more discretion to purchasing officials in the wake of public demands for accountability and impartiality. Among many others, procurement staff capacity lowers prices across many contexts (Best, Hjort, & Szakonyi, 2017), for example, in the US federal bureaucracy, one standard deviation increase in competence decreases cost overruns by 29 percent (Decarolis, Giuffrida, Iossa, Mollisi, & Spagnolo, 2018); or increasing procurement officers' autonomy compared to their auditors reduces prices of standard goods by 9 percent in Punjab, Pakistan (Bandiera, Best, Khan, & Prat, 2019).

Bidder and supplier characteristics capture the key determinants of companies participating in public procurement which determine their ability to offer low prices such as productivity and capacity. As suppliers are selected through tenders and results at least partially depend on the choices companies make, these characteristics can generally be only indirectly influenced by policy makers. Among many factors, company location and size is likely to influence prices while company risks such as tax haven registration or political connections also typically impact prices (Fazekas, Tóth, & King, 2016). For example, in India, roads built by politically connected contractors are on average 11 percent more expensive (Lehne, Shapiro, & Eynde, 2018).

Bidding outcomes corresponding to the intermediate or final results of the tendering process naturally influence unit prices contracted. These factors can generally be influenced only indirectly through

policy given the important role played by bidder decisions. A widely cited factor, the number of bidders, plays a highly influential role in determining prices under non-collusive conditions (Fazekas & Kocsis, 2017; Andrey Yakovlev et al., 2014).

For the sake of simplicity, we opted for a straightforward ordinary least squares (OLS) estimation of the regression parameters. This is a computationally efficient estimator able to handle models run on millions of records while containing hundreds of explanatory variables. Including a battery of fixed effects for structural factors such as market and year allows for building models with medium explanatory power: 15.37 percent. In spite of the linear functional form, the modelling framework is able to account for a range of nonlinear relationships by adopting a logged unit price dependent variable and also looking at alternative formulations of the independent variables, for example taking deciles of market concentration as a set of dummies rather than the continuous scale.

This modelling framework cannot fully account for a range of complex relationships between factors on multiple levels, and alternative modelling strategies could be considered. Interactions of market and tender level factors or explanatory factors influencing not only the dependent variable but also each other (e.g., advertising tenders not only influences prices directly but also through the number of bidders) could be considered. Alternative, more advanced modelling strategies such as Multilevel Modelling incorporating different measurement levels or Structural Equation Modelling incorporating complex and often indirect relationships among explanatory factors hence represent a natural extension of the OLS approach.

The adopted methodology carries the advantage of exceptionally wide scope, while the identified correlations are not necessarily causal. Nevertheless, it combines strong, well-tested theories underpinning the choice of explanatory factors as well as a mixed methods approach, including case studies in component 3, which together tentatively support a causal interpretation. In addition, the explanatory power of the models, lends support to the claim that omitted variable bias doesn't plagues our estimations.

In addition, in-depth case studies could be added to regression modelling results. This would allow us to get a more precise understanding of the causal mechanism underpinning the regression parameters and also to look at additional cost drivers such as product specifications. Such a detailed analysis drawing on quantitative data but also on diverse qualitative insights also considers the dependent variable more comprehensively. It would look at maintenance and running costs on top of purchase price, taking the dependent variable definition closer to the ideal, full life-cycle cost. CHAPTER 5

ENHANCING PUBLIC FINANCIAL MANAGEMENT AND FISCAL TRANSPARENCY — PROGRESS AND PERSISTENT CHALLENGES

INTRODUCTION

Effective implementation of fiscal policies and public expenditure programs requires a robust institutional framework for public financial management (PFM) and fiscal transparency. Adequate planning and budgeting procedures are needed to help allocate and track expenditures according to government priorities within the applicable fiscal rules. Moreover, accounting systems that allow the timely and accurate recording and control of spending processes help provide information on the government's fiscal and financial positions. Furthermore, reporting procedures that follow applicable standards help ensure accountability and transparency. These are all important elements of a modern PFM framework.

Poland has updated and improved its PFM processes and systems but continues to lag its European peers. A Budget System Reform (BSR) and a Public Sector Accounting Reform (PSAR) were initiated in 2016 with the preparation of comprehensive conceptual frameworks that follow international best practices. Yet, progress in the implementation of these conceptual frameworks has been slow, with limited adjustments made to the regulatory framework. A time-bound action plan is needed for the implementation. Some adjustments have been made to the regulatory framework. The sustained reform plans are included in the recent Convergence Program and the four-year MoF Directions of Actions and Development of the Ministry of Finance for 2021–24.

The slow implementation pace of budgeting and accounting reforms in Poland creates transparency challenges and results in limits to accountability mechanisms. Poland continues to have an incremental budgeting system, with cumbersome and ineffective line-by-line appropriations, rising off-budget expenditures via extra-budgetary funds and entities, a weak medium-term and performance perspective, and lack of a systemic spending review mechanism. Although the public sector Generally accepted accounting principles (GAAP) are accrual based, the application of public finance and public sector accounting laws and regulations result in the use cash-based budget execution reports and the use of cash-basis national methods with narrower

coverage for the calculation of the budget deficit and public debt, with parallel reporting to EUROSTAT, using the European System of Accounts 2010 (ESA 2010). The lack of consolidated financial statements on an accrual basis makes it difficult to assess the true and fair financial position (including all assets and liabilities) and performance even for the central government. The annual budget execution report does not include a balance sheet, information on non-financial assets or bank balances although it includes some information on financial liabilities (e.g. amounts payable, debt and contingent liabilities resulting from issued guarantees) and receivables. Non-financial assets are reported in a separate report on state treasury assets issued by the General Counsel of the Republic of Poland, but they are not included in the annual budget execution report, and are not subject to an external audit.

Accelerating the implementation of PFM reforms is critical for an effective implementation of national recovery plans. EU member states are preparing to implement reforms and undertake investments financed under the temporary EU Next Generation Recovery and Resilience Facility to support the recovery from the COVID-19 crisis. Adequate regulations, processes, and tools are needed to

- 1) support an effective, swift, and transparent allocation and utilization of the funding; and
- 2) facilitate the monitoring of progress and reporting of results according to established accountability and reporting standards. Existing gaps in institutional arrangements and systems might affect the effective implementation of Poland's national resilience and recovery plan.

The chapter reviews existing challenges in PFM and fiscal transparency in Poland, focusing on the budgeting and accounting systems and on fiscal transparency practices. The review follows the principles and conceptual framework set out by the World Bank Center for Financial Reporting Reform (CFFR) in the context of the regional Public Sector Accounting and Reporting Program (PULSAR),¹ which suggests an integrated view of the whole public financial management cycle with budgeting, accounting, and reporting procedures as the core elements of an effective PFM system (Figure 5.1). The chapter

Figure 5.1 Public Financial Management Cycle



Source: World Bank Center for Financial Reporting.

reviews progress in the implementation of the 2016 Budget System Reform program and presents recommendations on how to accelerate the reform effort, drawing on existing reports.²

THE BUDGET SYSTEM

The Budget System Reform³ initiated in 2016 was designed to address the main deficiencies and challenges in the public financial management systems and practices. The key objective of the BSR was the introduction of a budgetary system that supports the achievement of strategic goals and policy priorities, taking a long-term perspective, and in observance of applicable fiscal rules. Such a system would allow for a more effective management of current and anticipated fiscal pressures stemming from population aging, increasing social spending, and the implementation of the green and digital agendas. The reform plans, approved by the Council of Ministers (CoM) in 2016, entail the introduction of a medium-term budgetary framework (MTBF) that would transform the budget into a more effective fiscal planning tool to reflect medium-term government priorities. They also integrate multi-annual and annual planning processes, including the required adjustments in the budget calendar, as well as a review of institutional roles and responsibilities in the budget process for line ministries, the MoF and the CoM. The reform calls for the introduction of a new classification of budget revenues and expenditures, with a consistent chart of accounts and unification of the traditional budget classification and a performance-based classification. Data collection systems would be organized to allow, among other things, the integration of budgetary reporting and financial reporting. At the same time, as part of the reform, the use of expenditure reviews and other instruments to support the efficiency of public funds spending will be institutionalized.

Progress in the implementation of the BSR has been slower than anticipated. The overall implementation plan has not been yet officially published. On April 30, 2021, the Council of Minister adopted *Multiyear Financial Plan for the State for 2021–2024 (Convergence Program)*⁴ which includes information on the continuation of the BSR.

A key priority for the government is the phased development and implementation of a uniform Standard Chart of Accounts (SCoA) by mid-2022 for the public finance sector integrated with the budget classification. After setting up adequate

and effective governance arrangements and working groups for the SCoA, some progress has been made in defining the conceptual structure of the SCoA for standardizing the economic, functional, and administrative segments based on GFS/ESA to ensure consistency with regional and international reporting requirements for the general government and public sector. Next phases will include:

- defining the structure of the new budget classification integrated with the chart of accounts in the form of a report with business assumptions;
- devising an implementation plan for the new system and IT tool in 2022; and
- 3) piloting the new classification system in selected units in order to identify possible gaps in the new classification system, and areas for improvement; and in order to describe the results of testing the functioning of the designed solutions in 2023.

Some progress has been made in the implementation of the reform programs. The progress includes amendments to the Public Finance Act to incorporate reforms in the budget process, and the introduction of multi-year forecast requirements in the 2019 MoF budget regulation. The regulation introduces definitions of a "no-change" policy stance, and baseline expenses amounts - indicative expenditure amounts to two additional years after the budget year, which the MoF sets for the budget entities together with limits for the budget year. In parallel, there are ongoing conceptual works on the MTBF in the Public Finance Act. Legislative solutions for the new classification system, as well as a new model of budget management that takes into account the MTBF should be developed by 2025. Other recommended actions including setting up an independent fiscal council or deploying a change management strategy have not been initiated.

The work on the institutionalization and the methodology of the public expenditure reviews continued. In 2020, two pilot expenditure reviews related to state budget sector and prisons employee salaries, and support to employment and counteracting unemployment have been completed with OECD support and their findings were used in the budget discussions.

PUBLIC SECTOR ACCOUNTING

In order for the government to assess more accurately its overall financial position and the fiscal risks, it is necessary to simplify and standardize complex public sector accounting regulations and increase the availability of aggregated information on an accrual basis. The Public Sector Accounting Reform (PSAR) is part of the modernization of PFM practices and systems initiated in Poland in 2016. It is a critical instrument for supporting implementation of fiscal policies, as well as for enhancing fiscal and financial accountability in line with international best practices. The reform considers alignment of public sector accounting practices with the International Public Sector Standards (IPSAS).

Poland does not prepare or present consolidated whole-of-government or general government-level financial statements on an accrual basis that shows all assets and liabilities according to international standards.⁵ Many of the issues highlighted in the 2015 IPSAS Gap Analysis report by the World Bank's Center for Financial Reporting Reform (CFRR) are still valid today. This includes the finding that Polish public sector accounting regulations were complex, including sets of laws, regulations, sector-specific requirements, and separate budgetary reporting procedures. Poland's regulations include applying the accrual basis at entity level, but there are many exemptions. Moreover, information on an accrual basis is generally not used in the decision-making processes. The Accounting Act (AA) applies to both the corporate sector and to approximately 71,000 public sector entities, including State-Owned Enterprises (SOEs). Nevertheless, approximately 68,000 of these entities have been granted exemptions from the main requirements related to presenting financial statements, consolidation, and auditing.

Although it uses accrual accounting at entity level, Poland continues to operate with cash-basis accounting and budgetary reporting systems. Cashbasis accounting makes it difficult to accurately assess the government's overall financial position and the management of fiscal risks. On the other hand, it fa-

cilitates the shifting of spending and revenues across budget cycles. Moreover, the use of Special Purpose Vehicles (e.g. extra-budgetary funds), which are not included in the public sector as defined by the Public Finance Act, represent extra-budgetary operations, increasing off-budget expenditures and thus weakening the effectiveness of the constitutional debt ceiling.

The MoF has undertaken several important initiatives in line with the recommendations of the CFRR report. These include designing a standardized chart of accounts to be integrated with the budget classification; preparing the phased implementation of consolidated financial statements; an approach towards increased alignment with IPSAS; updates to some of the regulations, including the preparation of the balance sheet of the State Budget (covering mainly financial assets and liabilities as the first steps toward full accrual balance sheet for the central government) by the MoF to be issued for the first time in 2022 for year 2021; inclusion of the tax revenues transactions into the MoF accounts starting in 2018; and additional disclosure requirements for public sector entities.

The first phase of PSAR, which included the concept of the consolidation of government financial statements, was completed in 2020. The concept envisions a phased implementation including methods of consolidation, reporting templates, and preparation deadlines, as well as proposals for the ICT solution and a cost-benefit analysis of the proposed reforms. Apart from improving management of the state assets and liabilities, the proposed reform would also increase alignment and compliance of Polish accounting regulations with IPSAS, which is currently estimated at 68 percent.⁶

FISCAL TRANSPARENCY

Fiscal transparency is a critical element to support effective and efficient fiscal and financial policy implementation and to drive PFM system reforms. Fiscal transparency should be understood as the ability of a government to produce and disclose fiscal and public financial information in the scope, using a form and content that follow international accounting standards. Transparency entails reliable and timely publication of information on fiscal outcomes, fiscal forecasts, and assumptions over the medium term, as well as quality information about past, present, and planned fiscal operations. It also includes the processes, procedures, and institutional arrangements for public financial management. Availability and accessibility of fiscal and financial information help relevant stakeholders in a country keep track of how public resources are managed, and help governments not only to enhance their accountability but also to raise stakeholder awareness on the strategic choices and constraints affecting the public finances.

Disclosure of Polish public finances has improved since 2017, on all dimensions of data availability, accessibility, and reusability. Poland now scores above the OECD average on the availability and accessibility of open and useful government data. Satisfaction and confidence across public services, including the national government in Poland, have also increased substantially between 2007 and 2018 (up to 43 percent), although remaining slightly below the OECD average (45 percent).

Poland scores below the OECD average ratings on budget transparency, public participation, and oversight, however. Budget information provided by the Polish government is assessed as limited in the Open Budget Survey (OBS) 2019, which ranks Poland 32nd out of 117 countries with a transparency score of 60 (out of 100), below the OECD average of 68 (Figure 5.2). Poland does not publish the budget mid-year review online and does not always produce and publish the Citizens Budget in a timely manner. A more detailed macro-economic forecast, including projected interest rates for the upcoming budget year; estimates of total expenditures and revenues for the upcoming budget year; estimates on government borrowing and debt; and multi-year expenditure projections could improve the comprehensiveness of the pre-budget statement. The complexity of the public finance sector revenues and expenditures can be assessed from the maps created by the NGO Fundacja Republikańska (website at https://www.mapawydatkow.pl/), which presents an easier way for citizens to grasp the budget situation than the fragmented data provided on the website of the Ministry of Finance.



Figure 5.2 Open Budget Survey 2019—Fiscal Transparency

Source: International Budget Partnership.

Comprehensive information on tax expenditures is not published as part of the budget execution reports, while information on contingent liabilities is mainly limited to issued guarantees. These are two important elements that could contribute to increased fiscal transparency. Making information on tax expenditures available is a legal requirement in most of the EU member states; however, practices vary significantly. Disclosure of tax expenditures is critical to allow for a comprehensive view of the country's fiscal and budgetary priorities and the actual allocation and use of public resources. Similarly, an accurate and comprehensive view of contingent liabilities is important, as these could be a major source of fiscal distress (including from SOEs, PPPs, subnational governments, financial sector, and from special purpose vehicles). An accurate assessment and disclosure of these type of liabilities would allow stakeholders to have a more complete picture of the country's fiscal position and fiscal risks.

Inclusive public participation is crucial for realizing the positive outcomes associated with greater budget transparency. Public participation in the budget process during both the approval (legislative) and implementation (executive) stages is lower in Poland than in other countries, with Poland scoring 24 (out of 100) on public participation, according to the Principles of Public Participation in Fiscal Policies.⁷ Meanwhile, budget oversight is assessed as adequate, including legislative oversight and audit oversight, with Poland scoring 78 and 95 out of 100, respectively. Further improvements could be achieved if

- the Legislature debates budget policy before the Executive's budget proposal is tabled and approves recommendations for the upcoming budget;
- 2) the Legislature approves the Executive's budget proposal before the start of the budget year; and
- 3) a legislative committee examines in-year budget implementation and publishes its findings online.

The institutional framework supporting fiscal transparency can be strengthened further. Poland is currently the only EU member state without an independent Fiscal Council. Fiscal councils operate as watchdogs for monitoring fiscal policy, assessing macroeconomic and budgetary forecasts, overseeing compliance with fiscal rules, and analyzing long-term sustainability of public finances. Some of these functions mentioned are currently performed by different bodies in Poland, but this fragmentation of functions weakens their impact (European Semester, 2018–20⁸).

DRIVERS OF INSTITUTIONAL REFORM

The Poland Convergence Program⁹ and the MoF strategic directions for 2021-24 recognize the need to advance the implementation of BSR and PSAR to achieve their medium-term fiscal objectives. Ensuring stable public finance is a key objective of the government, included in the fouryear strategic document Directions of Actions and Development of the Ministry of Finance for 2021-24.10 The government aims to reduce general government deficit and debt (ESA 2010 methodology), including by developing a public finance consolidation strategy, that considers recommendations of the EU Council ECOFIN, EDP, and national fiscal rules, as well as by monitoring progress in public finance consolidation, in line with EU Council recommendations and ensuring compliance with the public finance security rules. To increase effectiveness of public funds management, the government is considering defining a new model of budget management, revising the budget calendar, and introducing a medium-term budgetary framework. It is also planning the development and implementation of a unified, multidimensional budget revenues and expenditures classification, integrated with the unified chart of accounts, and strengthening assets and liabilities management. All these actions are fully aligned with the objectives of the BSR and PSAR.

EU law related to fiscal and public financial management is an important external driver of PFM and fiscal transparency reforms in Poland and other EU member states. ESA 2010 requires fiscal reporting to EUROSTAT on an accrual basis for all EU countries. Ensuring uniform and comparable accrual-based accounting practices for all sectors of general government within the EU enhances the quality of the data on which the European System of Integrated Economic Accounts (ESA) is based, and consequently improves budget oversight and fiscal monitoring at the macro level to enable sound fiscal policy decision-making.¹¹

Article 126 of the Treaty on the Functioning of the European Union (TFEU), and Protocol No. 12 on the Excessive Deficit Procedure annexed to the Treaty refer to fiscal targets to be observed by Member States.12 Moreover, the Protocol provides relevant guidelines on fiscal and financial reporting standards. In addition to setting the numerical deficit and debt fiscal rules, it establishes the requirement to follow the ESA 2010 definitions, which monitors financial flows on an accrual basis. Compiling ESA accounts, however, often entails starting from the national government accounting standards and transforming them from cash to accrual basis, which can be challenging.¹³ Meanwhile, IPSAS, as a set of accrual accounting standards, allows for comprehensive debt and investment financial reporting on an accrual basis. This can substantially reduce the risk of systematic errors in the data used for preparing government finance statistics and informing policymaking.¹⁴

Through Directive 2011/85, the EU sought to improve economic governance in the wake of the global economic and financial crisis. Institutional settings at national level can play an important role in containing spending and avoid deficit biases; they include procedural rules of the budgetary process; numerical fiscal rules guiding or constraining policymakers' discretion; independent fiscal bodies or institutions in charge of providing inputs (e.g., forecast, analysis); and formulating recommendations in fiscal policy. The Directive contained a proposal for a Council Directive on requirements for budgetary frameworks of the Member States and mandated the application of the ESA 2010 standards.¹⁵ Lack of a unified EU public accounting standard and the lack of common national standards are the main difficulties in implementing this Directive, according to stakeholders from the member states. Unfortunately, the project to create European Public Sector Accounting Standards (EPSAS) for the EU did not materialize, delaying public sector accounting reforms and implementation of IPSAS.

The EU Recovery and Resilience Facility (RRF) could also be an important PFM reform driver.

Under the RRF, member states can access extraordinary financing to support their post-crisis recovery objectives, which might expose challenges related to absorption and transparency. The Facility is centered around six priority pillars and specific allocation requirements. The priority pillars include green transition; digital transformation; economic cohesion, productivity, and competitiveness; social and territorial cohesion; health, economic, social, and institutional resilience; and policies for the next generation. At least 37 percent of funds are earmarked for climate change, and at least 20 percent

for digital transformation. RRF is a response to the negative impact of COVID-19 by helping the EU's economies to become more resilient and fostering the green and digital transitions.

Modern budget and accounting systems are critical for effective management and absorption of these extraordinary funds to ensure building back better. The country's budget and accounting systems should provide tools (including ICT solutions) to allow for streamlined budgetary procedures and cycles, producing relevant budgetary and financial information in an orderly and timely manner, with sufficient level of detail and the possibility to tag and aggregate information using relevant criteria, including "green" and climate related. Examples of climate budgeting tagging methodologies, climate finance reporting and climate expenditure reviews are provided in the 2021 World Bank report: Climate Change Budget Tagging: A Review of International Experience.¹⁶ Such budgetary and financial information, including relevant tagging, should be subject to audit and public disclosure following accounting and transparency standards.

The RRF funds will be made available to the member states based on approval by the EC of national recovery and resilience plans (NRRP) that include a set of the reforms and public investment projects aligned with the six pillars with a results-based disbursement approach. To take full advantage of the RRF, the national public financial management framework should be capable of properly allocating, executing, reporting, monitoring, and evaluating the use of funds in respective program areas. Expenditure programs will require specific milestones and targets and procedures to measure and verify progress and achievement of results will need to be in place. Disclosure and transparency requirements will also need to be observed. Member states that do not have in place established PFM arrangements capable of supporting programmatic, multi-year and results-based budgeting and accounting procedures, would have to develop interim arrangements to support RRF related programs. Poland could use the opportunity of the RRF and NRRP processes to further accelerate implementation of the BSR and PSAR thus avoiding the need for such interim solutions.

REFORM OPTIONS AND RECOMMENDATIONS

The MoF remains committed to the important BSR reform and has established priorities for implementation. These priorities include a complete reform and unification of the chart of accounts (CoA) and budget classification, and the introduction of the MTBF. While the decision to prioritize these two reforms is commendable and could yield results in advancing the broader reform process, there are critical technical aspects that need to be considered as each of the reforms is linked to other important pieces of the system that need to be reformed in parallel.

The reform process needs to be considered in an integrated manner. Introducing the new Standard Chart of Accounts (SCoA), for example, will require improvements in organizational arrangements, in accounting and financial reporting standards, and in the accounting systems. The MTBF will require adjustments to the budget calendars, identification of programs, and the introduction of spending reviews. The IMF report highlights such requirements in detail and provides specific technical recommendations to advance the process.

Further alignment of Polish public sector Generally Accepted Accounting Principles (GAAP) with IPSAS would contribute to increased financial accountability, as well as improved management of public resources and fiscal risks. Given the complexity of the processes involved, full alignment can only be achieved over the mediumto long-term and requires significant investments that need careful planning and sequencing. Experiences from other countries underscore the importance of the commitment from senior management and politicians to ensure buy-in and participation of key stakeholders and in widely disseminating information on the benefits of investing in financial reporting on an accrual basis. Developing a comprehensive program should be based on preparatory studies, including an assessment of actual public sector accounting practices as well as an assessment of the institutional framework and any capacity constraints. In the short term, key stakeholders would also benefit from further awareness raising and capacity building, including IPSAS training, peer learning from other EU countries that apply IPSAS-based standards, and policy-setting workshops to consider and stimulate thinking on these issues.

In the short term, the current budget execution reports on a cash basis should be supplemented with additional information on an accrual basis, including on assets and liabilities. This is critical to better inform policy and decision makers in their management of public resources and fiscal risks. A first step would be to use the information already produced in accordance with Polish public sector GAAP. Thereafter, improvements to Polish public sector GAAP, ideally in line with IPSAS, would help further bridge the information deficit and allow for incorporation of ESA 2020 requirements for national methodology of fiscal reporting instead of maintaining dual standards.

Pending reform steps include completing the development of the SCoA and the integration of fiscal and financial reporting across the PFM cycle. The SCoA needs to be fully developed at both the administrative and economic segments. The administrative segment needs to identify accountability levels at which individual and consolidated financial reports should be compiled, review and refine the taxonomy of the Public Finance Sector, classify appropriate sub-types of entities, and define subsidiary reference tables for reporting by other combinations of public entities as required for statistical or legislative reporting. The economic segment of the SCoA needs to be further aligned to the generally accepted concepts of revenue, expense, assets and liabilities; and apply the notions of relevance, materiality, and cost benefit. Integration of fiscal reporting should adopt a balanced view of different purposes and uses including statistical reporting, budgetary, and financial, and ensure that all relevant user needs are equally represented and considered in the development of the SCoA.¹⁷ Furthermore, both financial reporting and the development of the SCoA need to be supported with ICT tools and software applications based on a detailed assessment of existing information systems as well as on relevant international experience. The cost of EPSAS implementation is estimated between €26 and €28 million, given the advanced level of the public sector accounting and the ICT environment in Poland, a level of investment that

is both affordable and amply justified, considering the expected economic and fiscal benefits.

The key recommendations of the 2015 IPSAS Gap Analysis report by CFRR still apply, a reflection of the complex reform environment. Actions to strengthen the Polish public sector GAAP, which may also be regarded as steps towards any eventual adoption of an accrual basis IPSAS, include:

- A) Simplifying and standardizing Polish public sector accounting regulations across all public sector entities. This includes the design and implementation of a unified chart of accounts to facilitate the provision of information to management, and budgetary/fiscal reporting.
- B) Developing aggregated accrual financial information to achieve a better understanding of government's overall financial position and fiscal risks than the one provided by current consolidated cash-based budget execution reports. This can be implemented as a phased process with consolidation to follow the existing budgetary process with financial statements (together with comprehensive disclosures) produced at central and subnational government levels.
- C) Revising the coverage and definition of public sector entities. The Public Finance Act omitted certain public sector entities from the definition of a public sector entity. Polish public sector GAAP should be reviewed and revised to include all appropriate entities and transactions.

The MoF could consider preparing and publishing a comprehensive road map and implementation plan for sequencing the interconnected SBR and PSAR. It should be possible to do so based on existing information, gap assessments, analytical reports, technical assistance support, etc. The road map and plans could be public documents subject to public consultation especially with the main stakeholders, parliament, politicians, and general public. The road map¹⁸ should include all main aspects of the reform including:

A) *Current status:* gap analysis, which has already been completed.

- B) Objectives: defining a clear rationale and expected outcomes. This is largely done already, although it could provide more specific results to each of the main stakeholder groups. One objective should be increased fiscal transparency, including informing the public about public finance in an accessible way.
- C) Approach: agreed-upon concepts for the reform, which are prerequisite and influence the whole reform path and implementation. For BSR, the vision has been already published, while for PSAR, the concept was prepared but not published. Before the implementation, agreed-upon concepts must be included in the legislative framework.
- D) Organizational capacity: a capacity-building program for participants and actors; an IT tools development plan should be prepared.
- E) Implementation processes: a detailed implementation plan including timeframe, resources, priorities, and sequencing should be prepared to implement agreed-upon approaches and concepts, e.g., piloting, top-down approach, roll-out, etc.
- F) Monitoring and evaluation: the process of reform should be regularly monitored and transparently evaluated for results (e.g., by parliamentary commission) allowing for modifications as needed and justified.
- G) Reform governance: a cross-cutting element of the reform implementation, which includes proper high-level support to the reform, strong leadership, dialogue with stakeholders, and ensuring sustainability of the reform to reach objectives.
- H) Communication and culture: another cross-cutting element that considers change management (adaptation) strategy and the need to inform stakeholders and public about the implementation of the reform.

MoF could also consider taking immediate actions to strengthen budget and fiscal transparency practices. Based on the robust baseline of data availability and openness, efforts could focus on proactive dissemination of budget- and fiscal-related data, stakeholder engagement, and further institutionalization of public participation in budget and fiscal management issues. Immediate actions to be taken could include:

- A) Improving budget transparency: publishing midyear budget implementation reports online, producing and publishing a Citizens Budget online, and a more detailed macro-economic forecast to improve the comprehensiveness of the pre-budget statement (multi-year expenditure projections with assumptions and indicators).
- B) Improving public participation in the budget process: developing pilot mechanisms to exchange views from the public or NGOs in the budget process during both the approval (legislative) and implementation (executive).
- C) Making budget oversight more effective: the parliament could debate budget policy before the budget proposal is submitted and approve recommendations for the upcoming budget, ensuring that a legislative committee examines reports on inyear budget implementation and publishes recommendations online; consider setting up an independent fiscal institution to further strengthen budget oversight.
- D) Implementing and institutionalizing the Fiscal Council: In line with best practices from EU member states, Poland could benefit from setting up an independent fiscal council to support analytical and monitoring activities related to fiscal and budget policies.

Three additional actions could be considered by the MoF to complement the short and medium-term plans already in place. These could serve as important reform enablers and become a permanent support in the transition to an enhanced PFM system:

A) Carrying out an assessment of ICT capabilities and requirements to prepare a medium-term strategy that includes ICT solutions to enable collection and consolidation of financial information, as well as other PFM processes at the central and decentralized level. Given the project's strategic relevance, the hardware and software investments associated with its development could be supported through the NRRP.

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B) Establishing a permanent and comprehensive training program for government staff involved in PFM-related functions. The transition to accrual-based accounting and adoption of international standards like IPSAS will require extensive training and support to public sector staff already used to pre-existing practices. Given that in Poland, International Financial Reporting Standards (IFRS) are required for all domestic companies whose securities trade in a regulated market, there is an opportunity for knowledge transfer from the private to the public sector — despite differences in the IFRS and IPSAS.

Notes

1. Stocktaking of Public Sector Accounting and Reporting Environment in PULSAR Beneficiary Countries, the World Bank 2020

https://cfrr.worldbank.org/publications/stocktaking -public-sector-accounting-and-reporting-environment -pulsar-beneficiary

- 2. The analysis draws on: S. De Clerck et.al., Poland Progress Report on Budget System Reform -Developing a Standard Chart of Accounts (SCoA) and a Medium-term Budget Framework (MTBF), Technical Report, FAD, IMF, April 2020. European Commission (2020), Review of the suitability of the Council Directive 2011/85/EU on requirements for budgetary frameworks of the Member States, Staff Working Document SWD(2020) 211 final; European Commission (2021), Supporting Public Administrations in EU Member States to Deliver Reforms and Prepare for the Future, Staff Working Document SWD(2021)101; European Commission (2020), Updated accounting maturities of EU governments and EPSAS implementation costs, Paper by PwC on behalf of Eurostat.
- 3. More details can be found at https://mf-arch2.mf.gov.pl/ c/document_library/get_file?uuid=5fee3505-4860-46c1 -8539-2d4ad9349dd1&groupId=764034 https://mf-arch2.mf.gov.pl/c/document_library/ get_file?uuid=eaa75625-1b8b-40e2-a11f-b1e1aa083909 &groupId=764034
- 4. https://www.gov.pl/web/finanse/wieloletni-planfinansowy-panstwa
- 5. 2015 IPSAS Gap Analysis report by the World Bank CFRR https://cfrr.worldbank.org/publications/comparison -polish-public-sector-gaap-ipsas
- 6. EC 2020 "Updated accounting maturities of EU governments and EPSAS implementation cost." https://ec.europa.eu/eurostat/documents/9101903/9700113/Updated-accounting-maturities-and-EPSAS-implementation -cost-June+2020.pdf
- 7. http://www.fiscaltransparency.net/pp_principles/

- C) Establish a baseline and gap analysis of existing PFM practices and carry out periodic evaluations of progress. Poland could consider using the Public Expenditure and Financial Accountability (PEFA) framework for a robust and systematic assessment and diagnosis of the entire budget cycle and other PFM areas. The PEFA methodology, which is an internationally-accepted methodology to assess PFM practices, could be a good option to further fine-tune the reform action plans and to monitor progress.
- 8. https://ec.europa.eu/info/business-economy-euro/ economic-and-fiscal-policy-coordination/ eu-economic-governance-monitoring-prevention -correction/european-semester_en
- 9. https://www.gov.pl/web/finanse/wieloletni-plan -finansowy-panstwa

Every April, EU Member States (MS) are required to lay out their fiscal plans for the next three years: "Stability Programs" for Eurozone MS or "Convergence Programs" for other MS. This exercise is based on economic governance rules in the Stability and Growth Pact, which aim to prevent the emergence or exacerbation of fiscal difficulties.

- 10. https://www.gov.pl/web/finanse/strategia-mf
- 11. Collection of information related to the potential impact, including costs, of implementing accrual accounting in the public sector and technical analysis of the suitability of individual IPSAS standards, Prepared for the European Commission, PwC (2014)
- 12. https://ec.europa.eu/info/business-economy-euro/ economic-and-fiscal-policy-coordination/ eu-economic-governance-monitoring-prevention -correction/stability-and-growth-pact/ legal-basis-stability-and-growth-pact_en
- 13. In many EU countries ESA accounts are derived from cash-basis public accounting systems, through a series of "accruals adjustments". These adjustments are estimated on a macro basis, and as a result they are approximations. Where there are no accruals accounts at the micro level, financial transactions and balance sheets have to be derived from a mix of different sources, leading to a "statistical discrepancy" between the deficit compiled via non-financial accounts.
- Towards implementing harmonized public sector accounting standards in Member States, European Commission Staff Working Document (2013)

15. Ibid.

- 16. World Bank. 2021. Climate Change Budget Tagging: A Review of International Experience. Equitable Growth, Finance and Institutions Insight
- 17. S. De Clerck et.al.
- World Bank road map template can be found at https://cfrr.worldbank.org/index.php/publications/ roadmap-public-sector-accounting-reform-good -practice-template

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