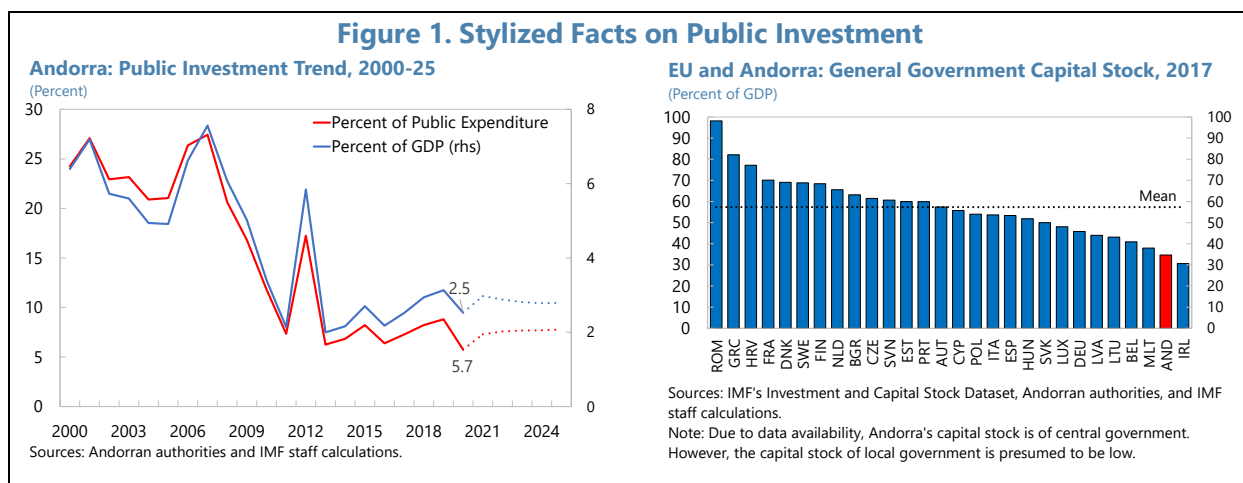


PUBLIC INVESTMENT TO CATALYZE ANDORRA'S RECOVERY¹

Boosting public investment would catalyze the post-pandemic recovery by fostering employment and economic activity and facilitating the transformation toward more resilient and greener economies. As the focus shifts toward securing an economic recovery, Andorra should aim to reverse the declining public investment trend by building on the already well-developed sectoral strategies to scale-up and fast track some of the planned investments. The near-term focus could be on reassessing implementation of the existing pipeline of projects, advancing digital transformation, and diversifying the tourism sector. In the medium-term, adapting to climate change could include artificial snowmaking to help keep ski resorts remain open during warmer winters, and advancing the energy transition initiatives. Analysis shows that the real GDP level could be 3 to 6 percent higher in the medium-term, compared to staff's baseline projections, with a faster return to the precrisis unemployment rate.

Context

1. Andorra's public investment has been on a declining trend, in line with developments in most advanced economies. General government public investment has declined from 24.3 to 5.7 percent of GDP and from 6.4 to 2.5 percent of GDP between 2000 and 2020 (see Figure 1). This trend is in line with the decline observed across countries in the European Union (EU) and other advanced economies. Andorra's public capital stock, however, remains smaller than in many of its peers.



2. The COVID-19 crisis adds to the importance of modernizing and revamping existing infrastructure to meet current and future challenges. As the health crisis resolves, and the focus shifts from saving lives and providing lifelines to households and businesses, the government should

¹ Prepared by Michelle Tejada (EUR).

aim to reverse the declining public investment trend that started even before the pandemic. With the right policies, the post-pandemic economy could be more resilient, inclusive, and greener. Done in a timely manner and safeguarding quality, public investment could play a central role in the recovery. Despite their high costs, investment projects that maximize social payoffs also preserves fiscal space as they are temporary in nature and could lead to future increases in fiscal revenue.

3. Advanced economies benefiting from lower nominal interest rates and low inflation can more easily scale-up investment but should balance the benefits with worsening debt dynamics. High-quality investment projects could benefit from even more favorable terms as the assets created generate taxable returns which are priced into the sovereign risk. Moreover, with large economic slack, public investment could have a larger impact than in normal times, including through larger crowd-in of private investment. However, these potential effects should be balanced with the risk of abrupt changes in global market sentiment, worsening debt dynamics amid still-high spending needs, and the degree of uncertainty about the economic recovery.

Andorra's Initial COVID-19 Response: Impact on Public Investment

4. As the COVID-19 crisis started to unfold, Andorra's immediate focus—as in most of the world—was to address the health emergency and provide support to households and businesses. The government passed an extraordinary budget in March 2020—hereafter denoted '2020 COVID-19 budget'—incorporating measures to address the health and economic crisis amounting to €65 million (2.6 percent of GDP), consisting of relaxation of tax obligations, increase in health spending and current transfers to households and business, and direct support to select public enterprises. This was achieved through a combination of reallocation of expenditure and borrowing to compensate for the decline in domestic revenue and higher spending needs.

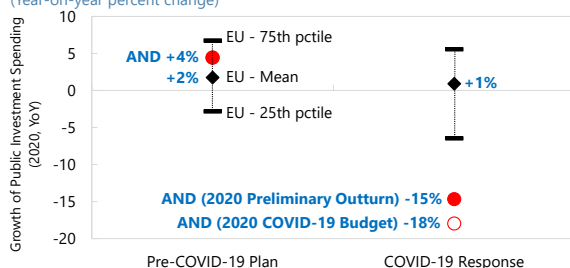
5. The expenditure reallocation needed to achieve the pandemic-related urgent needs weighed heavily on reductions to public investment, causing major disruptions in some ongoing and planned projects. Compared to 2019 outturn, public investment (including capital transfers) was set to increase by 0.16 percentage points of GDP in the 2020 pre-COVID-19 budget (Figure 2). However, the 2020 COVID-19 budget saw a reduction in public investment by 0.45 percentage points of GDP, with a preliminary outturn showing an actual reduction by 0.36 percentage points of GDP. Although the change across countries in the EU is widespread depending on countries' circumstances, the drop is nonetheless more drastic in Andorra. The 2021 budget sets the total expenditure size at a level similar to the 2020 pre-COVID-19 budget. However, capital expenditure (including capital transfers) is expected to decline by 15 percent (€13 million, or 0.5 percent of GDP) compared to the pre-COVID-19 plan for 2020 to compensate primarily for the additional necessary increase in transfers to the health and social sectors (see tables in Figure 2).

Figure 2. COVID-19 Impact and Response

Comparing 2020 pre-COVID-19 budget, 2020 COVID-19 budget and 2020 preliminary outturn.

Public Investment Spending, 2020

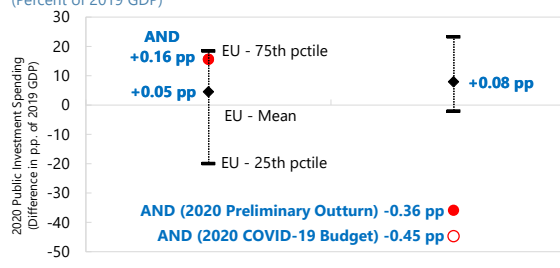
(Year-on-year percent change)



Sources: Andorran authorities, World Economic Outlook, and IMF staff calculations. Note: the chart shows the distribution of the growth rate in public investment, deflated by CPI. The pre-COVID-19 Plan estimates for EU countries are based on January 2020 WEO vintage, and the COVID-19 Response estimates are based on October 2020 WEO vintage. AND estimates compare 2020 original budget and 2020 extraordinary budget. EU estimates exclude Bulgaria, Cyprus, Finland, and Germany. EU averages are unweighted.

Public Investment Spending, 2020

(Percent of 2019 GDP)



Sources: Andorran authorities, IMF World Economic Outlook, and IMF staff calculations. Note: The chart shows the distribution of the difference between 2020 and 2019 public investment as percent of 2019 GDP. The pre-COVID-19 Plan estimates for EU countries cover GG and are based on January 2020 WEO vintage, and the COVID-19 Response estimates are based on October 2020 WEO vintage. AND estimates compare 2020 original budget, 2020 extraordinary budget, and 2020 preliminary estimates. EU estimates exclude Bulgaria, Cyprus, Finland, and Germany. EU averages are unweighted.

Public investment in the 2021 budget was reduced relative to the 2020 pre-COVID-19 budget.

Institution	2020 Pre-COVID-19 Budget	2021 Budget	Difference	Percent Change	Percent of 2021 GDP
By expenditure category					
Total expenditure	470.6	463.3	-7.2	-1.5	-0.3
Current Expenditure	390.8	396.6	5.8	1.5	0.2
Subsidies and transfers	200.6	211.1	10.5	5.2	0.4
Other	190.3	185.6	-4.7	-2.5	-0.2
Capital expenditure (inc. capital transfers)	79.7	66.7	-13.0	-16.4	-0.5
By Sector					
Total expenditure	470.6	463.3	-7.2	-1.5	-0.3
Budget allocation increase	114.5	128.8	14.3	12.5	0.5
Ministry of Health	70.4	81.9	11.5	16.3	0.4
Ministry of Social Affairs	28.7	31.2	2.6	8.9	0.1
Ministry of Presidency, Economy, and Business	15.4	15.7	0.2	1.6	0.0
Budget allocation decrease	356.1	334.6	-21.5	-6.0	-0.8
Ministry of Public Works	52.2	42.1	-10.2	-19.5	-0.4
Ministry of Finance	86.4	81.4	-4.9	-5.7	-0.2
Ministry of Foreign Affairs	8.1	7.7	-0.4	-4.5	0.0
Other sectors	209.4	203.3	-6.1	-2.9	-0.2

Sources: Andorran authorities and IMF staff calculations.

Comparing 2021 budget and 2021 plans contained in the 2020 pre-COVID-19 budget.

Andorra: 2021 Fiscal Budget - Investment Projects and Maintenance Reduction
(In Millions of €)

Project	Amount
Protection of Portalada zone	2.9
Fiter i Rossell School	1.0
Andorran High School	2.0
Santa Coloma's school expansion	1.3
Andorran Health Care Service - day hospital	1.0
Renovations	1.3
Cancelled contract	2.0
Other (not specified)	1.6
Total	13.0

Sources: Andorran authorities and IMF staff calculations.

Boosting Andorra's Public Investment: Priority Areas and Synergies

6. As pandemic-related spending is rolled back, public investment should be rapidly scaled up and, when feasible, planned projects brought forward starting in the second half of 2021. A fiscal stimulus led by the general government from an additional 1 percent of GDP in investment spending per annum in 2021 to 2023 would outweigh the cost and have a high multiplier effect on output (see Annex V in the Staff Report (IMF, 2021)). During the partial reopening (between 2021–22) the focus should be on: (i) maintenance of existing infrastructure; (ii) ready for implementation projects; and (iii) small-sized but job-intensive projects. During the post-pandemic period (between 2022–2023) the focus should be on big, transformational projects with large long-term multiplier.

7. The investment package should build on the multiple well-developed sectoral strategies prepared by the government and these can potentially be fast-tracked or scaled-up or both. The priority areas are the following:

- **Disrupted (but still relevant) projects and newly identified ones:** bringing back on track projects disrupted by the crisis that are still relevant, as well as newly identified ones such as key construction projects primarily led by the Ministry of Land Use Planning. Some examples include the Multifunctional Building (€35 million, partially funded), the National Heliport (through administrative licenses to the private sector), and the National Epidemiology Laboratory (costs to be determined). Other small projects that have been cut, but are still relevant, for a total cost of €7 million should also be reconsidered in the short-term. Road maintenance has not been disrupted and has partially outweighed the impact of the decline in public investment overall.
- **Tourism:** investments to de-seasonalize the tourism sector, attract tourists from multiple destinations and interests, and to differentiate Andorra by continuing to strengthen the country's brand are considered key priorities for both the public and the private sector. While in Andorra the bulk of the investment in the hospitality sector is undertaken by the private sector, the government plays a key role in the coordination, training, marketing, and some public investment needs for the sector. There is potential to scale up the role of the central government, including through some real investments and capital transfers to local governments and to other institutions.
- **Digital transformation:** as part of the Government's Horizon 2023 Strategy, the authorities are committed to digitalize government operations and the economy in the coming years. A new law on digitalization has been adopted, and the country is working to further align its digitalization program with EU practices. The authorities have developed an action plan and a strategic roadmap with over one hundred initiatives identified by priority levels with an estimated cost between €15.5 million and €18.5 million. The framework is built on two pillars: global digitalization and digital governance structures; and includes interventions on e-government, e-trade, e-tourism, e-trade, e-mobility, e-education, e-citizen, and e-justice. Fast-tracking and fully funding the entire program would contribute to the proposed boost in public investment and improve efficiency in the country.

Table 1. Andorra: National Digitalization Program—Cost Estimates

		2021		2022		2023		Total	
		Mil euros	% GDP	Mil euros	% GDP	Mil euros	% GDP	Mil euros	% GDP
Required	Level 0	3.5 - 3.9	0.13 - 0.15	2.0 - 2.3	0.07 - 0.08	1.0 - 1.3	0.03 - 0.04	6.5 - 7.5	0.08 - 0.09
	Levels 0 - 1	7.0 - 7.4	0.26 - 0.28	4.0 - 4.8	0.14 - 0.17	1.5 - 2.3	0.05 - 0.08	12.5 - 14.5	0.15 - 0.17
Recommended	Levels 0 - 3	7.5 - 8.5	0.28 - 0.32	5.0 - 6.0	0.18 - 0.22	3.0 - 4.0	0.1 - 0.14	15.5 - 18.5	0.19 - 0.22

Sources: Government of Andorra and KPMG.

Level 0: initiatives considered as a must, necessary in order to achieve the digital transformation objectives set.

Level 1: Initiatives considered as should. They are important and necessary at the same level as 0, but their execution and results are not essential in the context of PdTDA.

Level 2: Initiatives considered as could. Its execution will have a positive impact but will take place only taking into account the availability of resources.

Level 3: Initiatives considered as would. They remain as initiatives identified and are valuable but are not included in the PdTDA roadmap.

- **Transportation and mobility:** including through road maintenance, greening transport, and cross-border connectivity in the medium-term. The government is exploring different options to increase cross-border connectivity, including the construction of a national airport or a railway line to connect Barcelona with the Andorran ski resorts via Seu d'Urgell (Catalonia, Spain). Moreover, the authorities have plans to transition toward more sustainable local transportation methods, by increasing incentives to use public transportation and shared mobility schemes (such as bike and carsharing), as well as more energy efficient means.
- **Climate change adaptation and mitigation:** as a microstate, Andorra would need to adapt and build its resilience to climate change. Warmer winters and lower precipitation are impacting snow production and ski seasons, a sizable part of the Andorran economy. The authorities are taking positive steps at climate mitigation with a carbon tax and by improving energy efficiencies by retrofitting existing public buildings (at an estimated cost of €1 million per building). On top of these useful initiatives, the central government could take steps toward climate adaptation by increasing its share in snowmaking investment (both in water reservoirs and snowmaking machines), which could increase winter tourism resilience. Moreover, by improving the long-term resilience of ski-tourism, the additional public investment could boost private investment, which is currently lackluster.

8. The Andorran central government works in close coordination with different government agencies and the private sector. Real investments have the highest fiscal multiplier (and are at the core of this analysis), but increasing capital transfers to local governments—as well as directly or indirectly to the private sector—and continued collaboration with the well-functioning State Owned Enterprises (SOEs) Forces Elèctriques d'Andorra (FEDA) and Andorra Telecom will also aid in the economic recovery and support long-term growth. While the central government does construction and maintenance of main roads and buildings, local governments are responsible for local and secondary roads as well as investments under their competencies at the local level (i.e. library, local theater, etc.), and continued collaboration with them will be beneficial for the country.

9. Indeed, beyond the central government, FEDA and Andorra Telecom are at the forefront of the energy transition and digitalization of the country and driving the transformation. For the purpose of this note, the investments of the state-owned enterprises are

subsumed under private investments. FEDA's investment plan for 2021–25 amounting to €128 million aims to increase the production of renewable energy and develop new infrastructures to help the country manage peak energy demand. It includes projects on electrical grid, renewable electricity generation, cogeneration and district heating, and efficiency and sustainability. The plan has a small financing gap of about 10–15 percent of the cost, but financing for the rest is secured. Andorra Telecom has a detailed investment plan to be implemented in 2021–24 amounting to €75 million, which is fully funded, aiming to revamp the telecommunication infrastructure of the entire country. The authorities should explore opportunities to fast-track and scale up some of these projects and to fill potential financing gaps.

Boosting Andorra's Public Investment: Impact on the Economy and Public Debt Sustainability

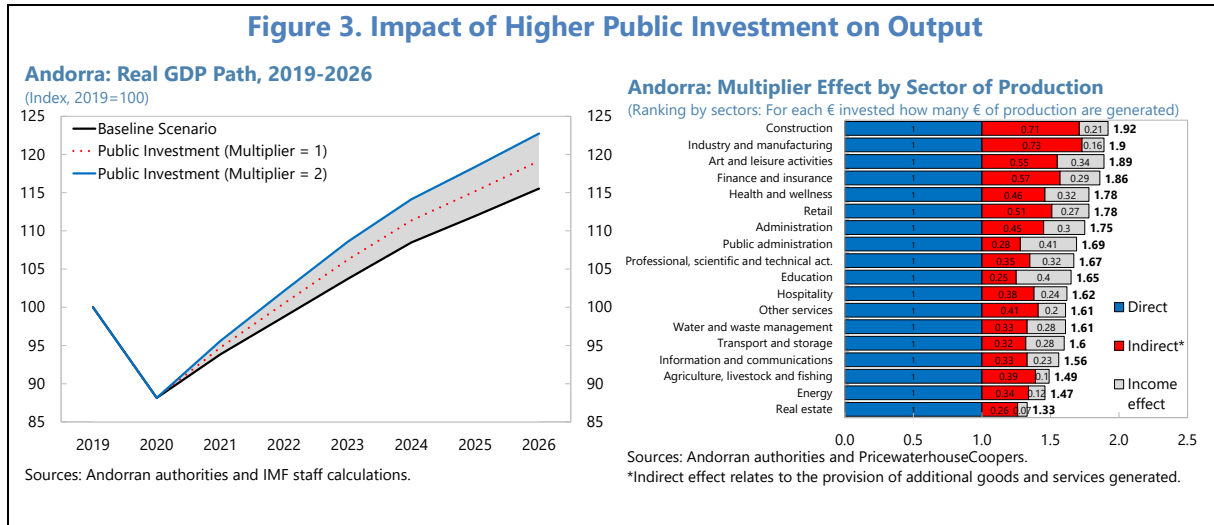
10. In determining the size and composition of the fiscal stimulus, job creation is an essential criterion. Using the estimates for job content in different country groups presented in the October 2020 IMF Fiscal Monitor, and assuming an increase in public investment package of 3 percent of GDP based on the government's strategies already developed, the job intensity of the public investment stimulus package is estimated. The government of Andorra could create over 500 direct jobs—over 1 percent of the labor force bringing the unemployment rate half-way to the pre-crisis level—and additional jobs indirectly depending on how much additional demand is created and the share of skilled/unskilled labor component of the investment projects selected. “Green” investments are often relatively job-intensive and should therefore be at the forefront of the government's recovery package.

11. Moreover, public investment tends to have larger short-term multipliers than public consumption, taxes, or transfers; and it is usually larger than one. Some of the factors increasing Andorra's investment multiplier include: (i) the fact that it is an euroized economy, which makes monetary policy less responsive; (ii) the current macroeconomic conditions as multipliers are larger in recessions and this is the deepest recession in decades; and (iii) having public debt at sustainable levels. Moreover, with the high uncertainty surrounding the recovery path, a boost in public investment would help to anchor confidence in the recovery and increase the multiplier as the private sector sees the stimulus as a commitment from the government to resolve the crisis and to create a more resilient economy. Other factors that affect Andorra's public investment multiplier in ways that could be either positive or negative include: (i) the size and openness of the economy, as there are some potential leakages to other countries through employment and trade; and (ii) the quality of investment projects and health of the private sector balance sheets, which would be specific to each project or firm.

Table 2. Andorra: Estimated Job Creation of a Public Investment Stimulus

	Job content per \$1 million of additional investment				Proposed fiscal stimulus package for Andorra			
	AEs	EMEs	LIDCs	Andorra's Assumptions	Millions of US\$	Millions of €	Percent of GDP	Job content
Traditional investment					45	37	1.4	162
Electricity	3.3	7.8	12.3	4.4	2	2	0.1	11
Roads/Transportation	2.4	5.2	8.0	3.1	12	10	0.4	38
Schools and hospitals	1.5	6.2	10.9	2.7	6	5	0.2	16
Water and sanitation	2.0	8.6	15.2	3.7				
Tourism de-seasonalization				3.5	6	5	0.2	21
Digital transformation	4.2			4.2	18	15	0.6	76
		Popp and others (2020)	IEA (2020)	Andorra's Assumptions				
Green investment					51	42	1.6	370
Electricity			7.5	7.5	22	18	0.7	164
Schools and hospitals		2.4	12.5	7.4				
Water and sanitation		5.7	14	9.9	7	6	0.2	72
Climate adaptation - retrofitting				7.5	10	8	1.0	73
Climate adaptation - ski slopes				5.0	12	10	0.4	61
Total					96	79	3.0	532
Memorandum items:								
2021 nominal GDP (Millions of €)			2,645					
€ per USD exchange rate (as of end-December 2020)			0.82					
Sources: October 2020 IMF Fiscal Monitor, Andorran authorities, and IMF Staff calculations.								
Note: estimations for job content for the country groups as presented in Figure 2.7 of the October 2020 IMF Fiscal Monitor based on Compustat, Orbis, and IMF Staff calculations. Estimations for job content of traditional investment for Andorra assumes a weighted average of 75 percent of AE value and 0.25 of EME values to account for country characteristics. Estimation for job content of green investment for Andorra assumes a simple average of the literature's estimate. AE= advanced economies; EMEs = emerging market economies; LIDCs: low-income developing countries.								

12. The boost in public investment would support the recovery and long-term potential growth. An increase of around 1 percent of GDP per annum in 2021–2023 could lead to an estimated real GDP level between 3.1 percent and 6.2 percent higher by 2026—assuming a public investment multiplier between 1 and 2—than under the baseline scenario (Figure 3). The range for multiplier is in line with the economic literature and with the authorities' estimates of "drag effect" of each production sector using input-output matrix for Andorra. The latter finds that each €1.00 spent generates between €1.33 and €1.92 in production and is highest for construction, manufacturing, artistic and leisure activities, and finance and insurance (Figure 3). Sectors with high dependency on tourism have the highest multiplier in Andorra given the tourism sector's direct and indirect contribution to economic output and the high interdependency of the whole economy on this sector.



13. Public debt is set to remain sustainable, but financing options will have to be carefully assessed to prevent a deterioration of debt dynamics with costly large infrastructure projects. Assuming additional borrowing of €100 million in 2022 to finance the proposed public investment boost, while taking advantage of the favorable international financial conditions, allows Andorra to keep its debt dynamics at sustainable levels (Annex V in the Staff Report (IMF, 2021)). The debt to GDP ratio peaks in 2021 at 56.7 percent and declines rapidly afterwards, as in the baseline scenario. The government of Andorra can bring the stock of debt below the fiscal debt limit of 40 percent of GDP by 2025 in the investment scenario, compared to 2024 in the baseline scenario.

References

International Energy Agency. (2020). *Sustainable Recovery*. World Energy Outlook Special Report. Paris: IEA. Retrieved from: <https://www.iea.org/reports/sustainable-recovery>.

International Monetary Fund. (2020). *Fiscal Monitor: Policies for the Recovery (Chapter 2)*. Washington, D.C.: IMF. Retrieved from: <https://www.imf.org/en/Publications/FM/Issues/2020/09/30/october-2020-fiscal-monitor>.

_____. (2021). *Principality of Andorra: Staff Report for the 2021 Article IV Consultation*. Washington, D.C.: IMF. Retrieved from: www.imf.org.

Popp, D., Vona, F., Marin, G., & Chen, Z. (2020). *The Employment Impact of Green Fiscal Push: Evidence from the American Recovery Act*. NBER Working Paper 27321. Cambridge, MA: National Bureau of Economic Research.