



PRINCIPALITY OF ANDORRA

SELECTED ISSUES

June 2021

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SELECTED ISSUES

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Approved By
European Department

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CURRENT ACCOUNT BALANCE AND EXTERNAL COMPETITIVENESS¹

The authorities have just started producing Balance of Payments data with technical assistance from the IMF's Statistics Department. Preliminary compilation shows that the current account surplus was 18 percent of GDP in 2019 and could have moderated in 2020. While a current account norm is hard to establish, the current account surpluses over the medium-term are appropriate in a euroized country without official international reserves. Analyses of various real exchange rates—including a new "1-week cost of skiing vacation" index—suggest that Andorra fares well in external competitiveness.

Current Account Balance

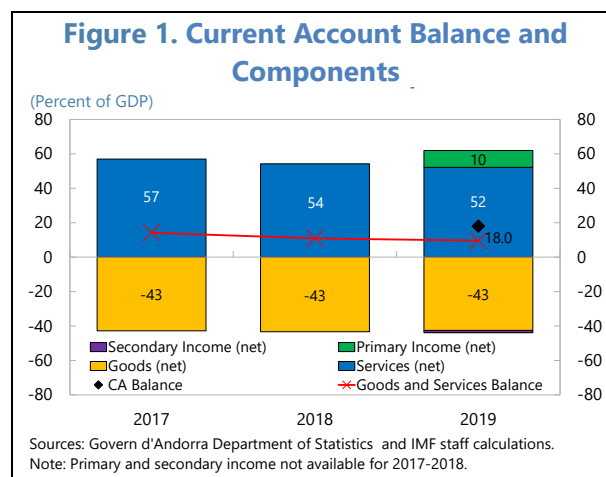
1. The current account (CA) balance, with newly produced data, was 18 percent of GDP in 2019.

Andorra has a trade surplus in services and a trade deficit in goods, resulting in a positive balance of goods and services that has somewhat deteriorated in 2017–19 (Figure 1).

Tourism exports, which comprise 60 percent of GDP, have slightly declined in 2019 as the number of visitors from Spain and France fell with a slowdown in regional GDP growth.

In 2019, net exports and net primary income contributed almost equally to the current

account surplus; data on primary and secondary income for previous years is not available.



2. The CA balance seems to have slightly moderated in 2020 but is expected to rise to pre-pandemic levels by 2026. Preliminary high frequency indicators show that while the number of tourists fell by almost 40 percent, fuel imports declined sizably by 35 percent. However, the large share of food and other necessity items, including medical supplies, have kept imports persistently high, resulting in a slight deterioration of the current account to 14 percent of GDP in 2020 (see Table 6 in the Staff Report (IMF, 2021)). With a full resumption of tourism, and a fairly flat demand for imports of necessary goods, the CA surplus is foreseen to increase back to 19.1 percent of GDP by 2026 (see Tables 2–3 and 6 in the Staff Report (IMF, 2021)).

3. A CA norm is hard to establish, but the persistence of CA surplus over the medium-term appears appropriate. The sizeable surplus provides comfort against balance of payments financing worries in a euroized economy without a lender of last resort and where sufficient

¹ Prepared by Joji Ishikawa (STA), Ana Lariou, and Jenny Lee (both EUR).

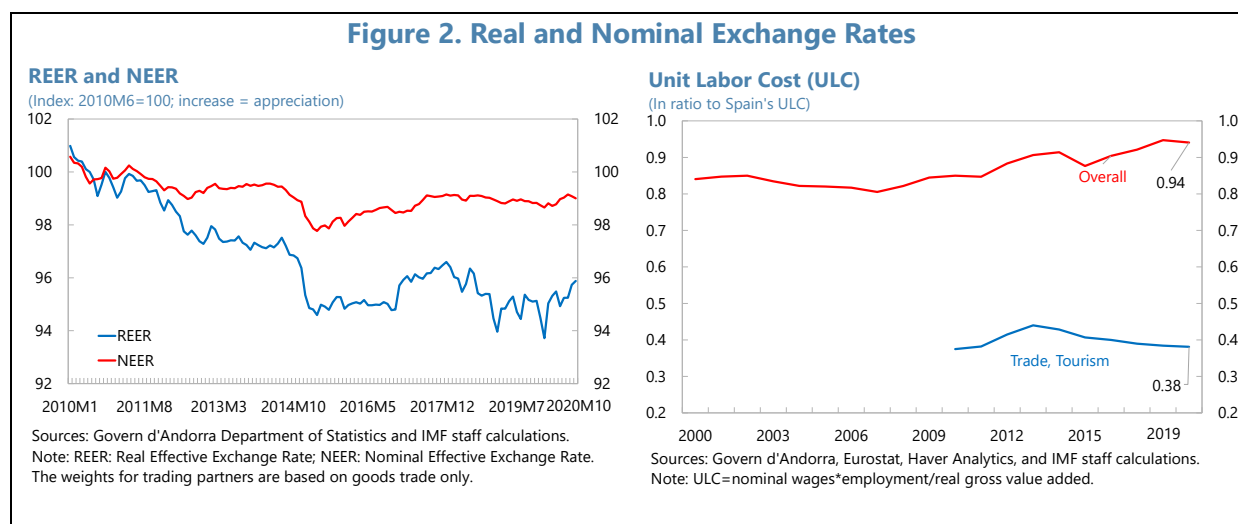
international reserves are yet to be built (see Selected Issues Paper (SIP): *Gross International Reserves*).

4. The balance of payments data for 2019 indicated that the CA surplus resulted in strengthening Andorra’s external position through the financial account transactions. The financial account showed that Andorran households and enterprises repaid loans received from banks abroad, and that Andorran banks purchased debt securities issued by non-residents. These transactions increased Andorra’s net asset international investment position further.

Real Exchange Rate and External Competitiveness

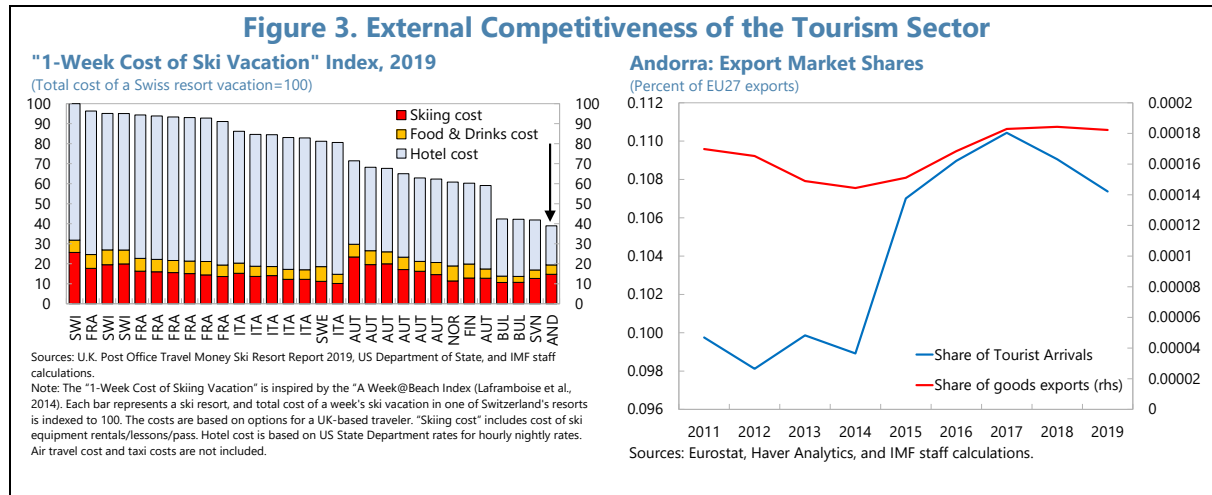
5. The CPI-based Real Effective Exchange Rate (REER) has been falling since 2018, as headline inflation increased slowly in the euro area and Spain, while Andorra’s fell. Declining energy costs pushed down prices of transport and recreation sectors in Andorra that account for a third of the domestic CPI index. While the NEER and REER trade weights are based on goods trade only (Figure 2, left), Spain remains the main trading partner for both goods and services trade, especially in tourism.

6. Comparing Andorra’s unit labor cost—the wage bill for producing a unit gross value added of trade and tourism output—with Spain’s could provide meaningful measures of competitiveness in the tourism sector. Such comparisons show that Andorra’s ULC is only about 40 percent of Spain’s in trade and tourism, and the ratio has been falling since 2013 despite similar productivity growths. This is in contrast to the growing ratio of overall ULCs between the two countries, although Andorran ULC remained below Spain’s.



7. A new “1-week Cost of Skiing Vacation” index shows that Andorra is a fairly cheap destination, especially in hotel cost comparisons. Inspired by the “Week@theBeach” index (Lafambroise et al., 2014), the nominal cost of a six-day ski vacation can be calculated based on the cost of ski equipment rentals/lessons/ski pass, food and drinks, and hotel costs. Indexed to the cost of an expensive Swiss resort, the “1-week cost of skiing vacation” shows that Andorra compares

favorably with other European ski destinations (Figure 3). The export market share, based on tourist arrivals, has also steadily increased in Andorra since 2014, notwithstanding the slight fall since 2018, demonstrating high and rising competitiveness.



8. In sum, the levels of various real exchange rates suggest Andorran exports are competitive. The norm for the CA balance is hard to estimate in the absence of reliable real sector and balance of payments data. However, analysis of the real exchange rate both in terms of weighted-average of goods-trading partner CPI, and in terms of relative unit labor costs in tourism services trade with Spain shows that Andorran trade is competitive, with rising market share of tourists. In fact, relative tourism wages are lower than relative productivity growth vis-à-vis Spain. The cost of ski vacation is also among the lowest in the region, mainly due to hotel costs.

International Investment Position

9. Andorra has taken first steps to produce international investment position (IIP) statistics. Currently, external position data are available for banks and other entities for which banks provide custody or management services. Staff supplemented these data with mirror data from the IMF’s Coordinated Direct Investment Survey (CDIS) and the BIS’ Locational Banking Statistics (LBS), albeit with limited coverage. In CDIS and LBS, participating countries report their positions in direct and other investments with Andorra. These positions reported by Andorra’s partner countries were aggregated and consolidated with the data received from Andorran banks (Table 1).

10. The results show that Andorra has a positive (net asset) position while it is vulnerable to withdrawals of deposits by non-residents. Andorra’s net asset position is consistent with its steady current account surplus, and it strengthened in 2019. Andorra had a net asset position in portfolio investment but a net liability position in other investment. The assets and liabilities in FDI were broadly balanced. More than half of the total liabilities held by Andorra were concentrated in deposits that Andorran banks received from non-residents, and this poses risks (see SIP: *Gross International Reserves*).

Table 1. Andorra: Estimated International Investment Position (2018–2019) 1/
(Percent of GDP)

ASSETS	2018	2019	LIABILITIES	2018	2019
Total	447.4	455.2	Total	273.8	245.9
Direct investment	41.7	38.1	Direct investment	36.6	35.2
Equity	41.6	38.0	Equity	36.3	35.5
Debt	0.1	0.1	Debt	0.3	-0.3
Portfolio investment	273.2	282.1	Portfolio investment	47.5	50.3
Equity	118.9	122.4	Equity	36.1	38.7
Debt	154.3	159.8	Debt	11.4	11.6
Other investment	132.5	135.0	Other investment	189.7	160.4
Loans	32.4	33.9	Loans	30.8	10.5
Currency & Deposits	100.1	101.1	Currency & Deposits	142.0	133.7
			Insurance	16.8	16.2

Sources: IMF CDIS, Bank of International Settlements (BIS), Andorran authorities, and IMF staff calculations.

1/ Issues in the coverage include countries' limited participation in the CDIS and LBS (e.g., some major offshore centers do not participate in the CDIS) and confidentiality of data (e.g., some countries do not disclose its direct investment assets and liability positions to Andorra, given that the data might reveal the investment by individual investors). The asset and liability positions in direct and other investments could increase if these issues are addressed. The equity component of direct investment is derived by deducting the debt component from the total direct investment positions for some countries. Debt positions in direct investment could be negative when subsidiaries or associates invest in their direct investors (i.e., parent companies). Debt securities (liabilities) in portfolio investment are reported only for banks.

11. The authorities need to continue developing data on IIP by filling remaining data gaps. In particular, the authorities need to improve and utilize the information from their business surveys and business registry. Potential source data at the Tax Office, Ministry of Finance, and other government agencies should also be explored. Euro currency circulating in Andorra needs to be estimated and added to currency and deposits (assets) in other investment. In addition to direct, portfolio, and other investments, asset and liability positions in financial derivatives also need to be compiled. The IMF is ready to provide technical assistance on the compilation of macro-economic statistics for Andorra.

References

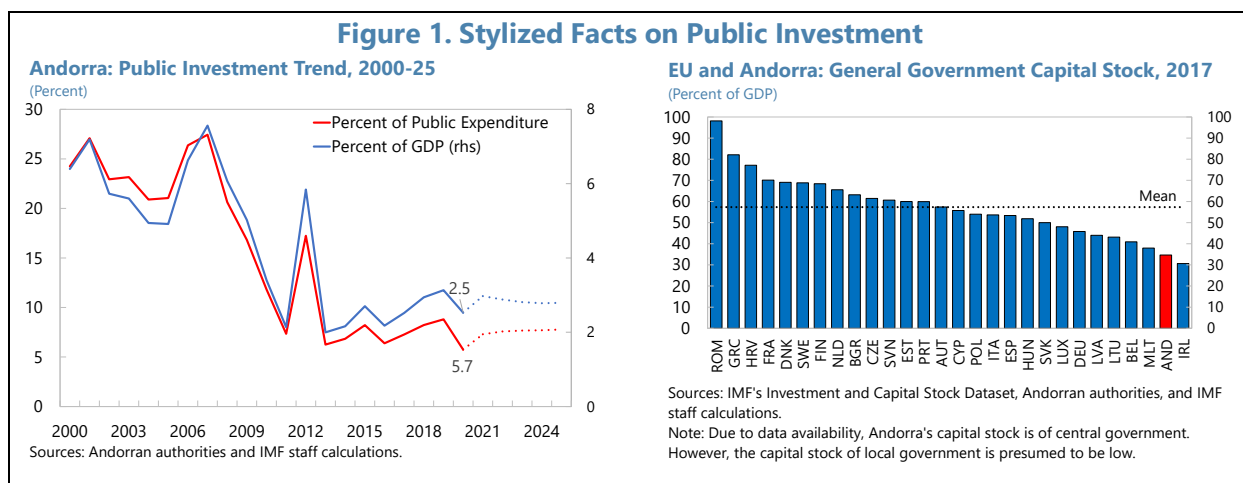
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PUBLIC INVESTMENT TO CATALYZE ANDORRA'S RECOVERY¹

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.

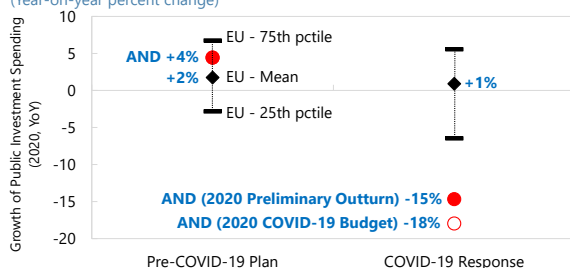
5. The expenditure reallocation needed to achieve the pandemic-related urgent needs weighed heavily on reductions to public investment, causing major disruptions in some ongoing and planned projects. Compared to 2019 outturn, public investment (including capital transfers) was set to increase by 0.16 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

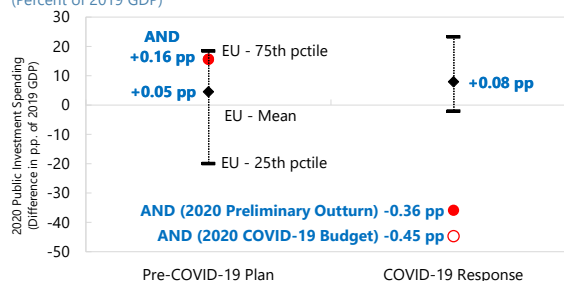
(Year-on-year percent change)



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.

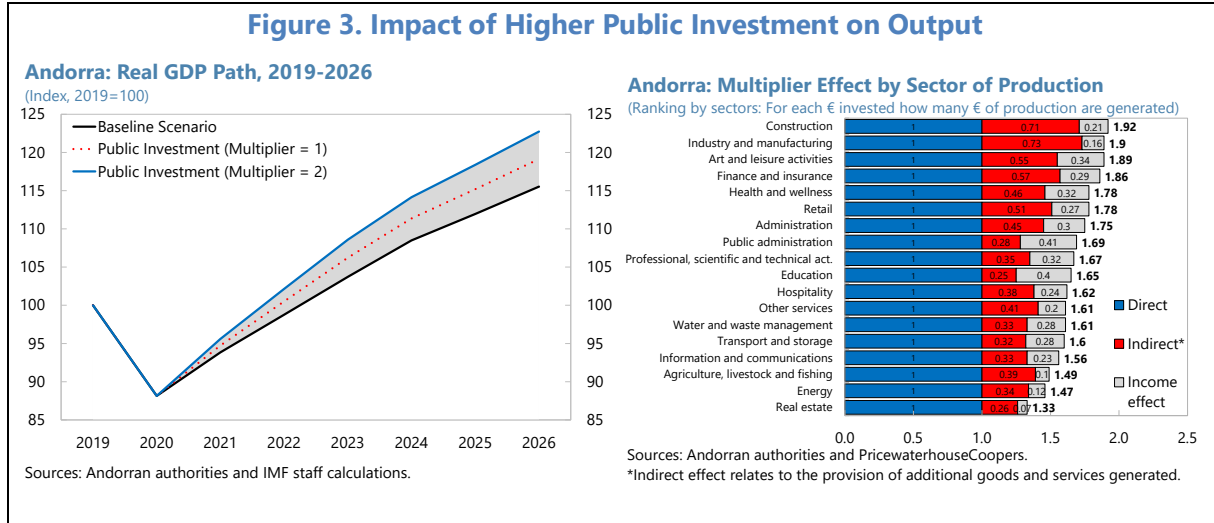
Table 2. Andorra: Estimated Job Creation of a Public Investment Stimulus

	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.

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GROSS INTERNATIONAL RESERVES: QUALIFICATIONS AND QUANTITIES¹

Building a stock of international reserve assets for precautionary purposes to cushion against balance of payments risks is especially important for a very open euroized economy. Moreover, Andorra does not have a lender of last resort for its large banking sector with sizeable nonresident deposits. Its reserve assets are currently limited to the reserve tranche position and the SDR holdings at the Fund, which amount to 2 percent of GDP. IMF staff estimate that the government's liquidity needs are €334 million, equivalent to 12 percent of GDP, assuming that the banks have enough high-quality liquid assets to cover their liquidity needs. The liquidity gap of the government is, thus, 10 percent of GDP, but could be larger if the banking sector has one.

Qualifications

1. **Liquid assets held by the central government for precautionary purposes must meet certain conditions to qualify as reserves.** Reserve assets are defined as those external assets, denominated in convertible currencies (including Euros and U.S. dollars), that are readily available to and controlled by monetary authorities for meeting balance of payments financing needs, for intervention in exchange markets to affect the currency exchange rate, and for other related purposes, such as maintaining confidence in the currency and the economy, and serving as a basis for foreign borrowing (paragraph 6.64 of the Sixth Edition of the IMF's Balance of Payments and International Investment Position Manual or BPM6). In the absence of a central bank, the reserve assets should be directly controlled by the central government; particularly, by the Ministry of Finance in the case of Andorra.
2. **The management of the reserve assets could be entrusted to a commercial bank as an agent for the Andorran government with the following conditions (paragraphs 6.67 and 6.68 of the IMF's BPM6):**
 - the commercial bank can transact only in those claims with nonresidents on the terms specified by the central government or only with its express approval;
 - the authorities have access on demand to these claims on nonresidents to meet balance of payments financing needs and other related purposes; and
 - a prior law or an otherwise legally binding contractual arrangement confirms this agency role of the resident entity that is actual and definite in intent.

¹ Prepared by Joji Ishikawa (STA) and Ana Lariau (EUR), benefitting from helpful discussions with Silvia Sgherri and Parisa Kamali (both SPR).

3. With no external assets that currently meet the conditions for reserve assets, except for small holdings of the Special Drawing Rights (SDRs) and the reserve tranche position at the IMF, the Andorran government should follow several steps to build a stock of reserve assets. The first step is to have liquid assets, in euros and other convertible currencies, deposited with non-resident banks. As mentioned above, those deposits could be held by an Andorran commercial bank that would act as an agent for the Andorran government. The deposit accounts can also be used for settlements when Andorra starts investing these resources in other financial instruments, such as government securities issued by other European countries. To diversify the financial instruments in which the reserve assets are invested, the Andorran government needs to develop institutional arrangements (e.g., create a department within the Ministry of Finance that is responsible for reserve assets management), investment strategies (e.g., types of financial instruments and currencies to invest in as well as trading styles), and a risk management framework.

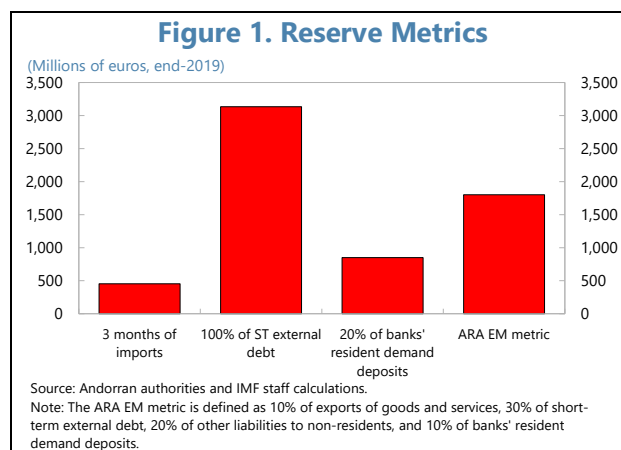
Quantity

4. With sizable current account surpluses projected in the medium term, Andorra is unlikely to face balance of payments financing risks. The authorities have started producing balance of payment statistics, which shows a current account surplus of 18 percent of GDP in 2019. While a full set of data is not available for 2017–2018, the balance on goods and services shows high surpluses for those years as well. Moreover, being fully euroized and integrated with the eurozone in trade and banking services, Andorra does not face the risk of exchange rate fluctuations and currency mismatches.

5. However, Andorra could still be subject to external shocks and should build precautionary reserve assets to cushion against possible liquidity shocks. A fully euroized economy without a lender of last resort suggests a need to build liquidity buffers, since the economy's high degree of openness exposes it to balance of payments-related shocks. For instance, on the current account side, Andorra relies heavily on goods imports, which are close to 50 percent of GDP. As witnessed during the pandemic last year, the government had to acquire medical supplies and equipment, while encountering a record fall in fiscal revenues mostly due to border closures by neighbors and a resulting sudden stop in tourism. On the financial account side, a large share of the funding for the banking sector—with assets over 500 percent of GDP—comes from nonresident deposits, which makes the Andorran banking sector vulnerable to liquidity shocks in the event of a capital flight. So, even though there is a positive net international investment position—estimated by staff from mirror data (see SIP: *Current Account Balance and External Competitiveness*)—other investment (currency and deposits) liabilities of banks are over 130 percent of GDP.

6. Based on the traditional metrics developed by the IMF, which account mostly for BoP-related risks, Andorra should hold reserve assets ranging between €452 million and €3,134 million (Figure 1).² The lower bound is given by the import coverage metric; while widely used, this measure ignores financial linkages, which might be important for an economy such as Andorra. The reserve metrics based on short-term external debt and on banks' resident demand deposits, which suggest a buildup of reserve assets of

€3,134 and €850 million, respectively, account for debt rollover and resident capital flight risks.³ The Fund's Assessment of Reserve Adequacy for Emerging Markets (ARA-EM) metric is a composite metric designed to better capture a range of capital outflow risks, including: (i) losses in export earnings; (ii) rollover risk of short-term debt obligations; (iii) portfolio outflows; and (iv) changes in broad money as a proxy for resident outflows. In the case of Andorra, the weights assigned to each component correspond to those of a fixed exchange rate economy.⁴ This metric shows that the international reserves in Andorra should amount to €1,814 million to provide an adequate liquidity buffer.⁵



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7. The traditional metrics seem to overestimate the reserve needs of Andorra. For instance, about half of the reserves implied by the ARA-EM metric correspond to banks' resident and nonresident demand deposits. Unless there is a liquidity gap in the banking system, the government does not need to accumulate reserves to cover for a foreign or a domestic deposit run against the banks (see further below). Furthermore, the ARA-EM metric includes other liabilities to nonresidents, which comprise medium- and long-term external debt and portfolio equity liabilities. Such instruments, with longer maturities, may not be relevant when assessing liquidity needs that are inherently short term.

² For details on the methodology, see IMF (2016).

³ The metric traditionally used to capture resident capital flight risk is relative to broad money (usually M2). However, in the case of Andorra, unilateral euroization implies that there is no base money. Hence M2 is replaced with banks' resident demand deposits.

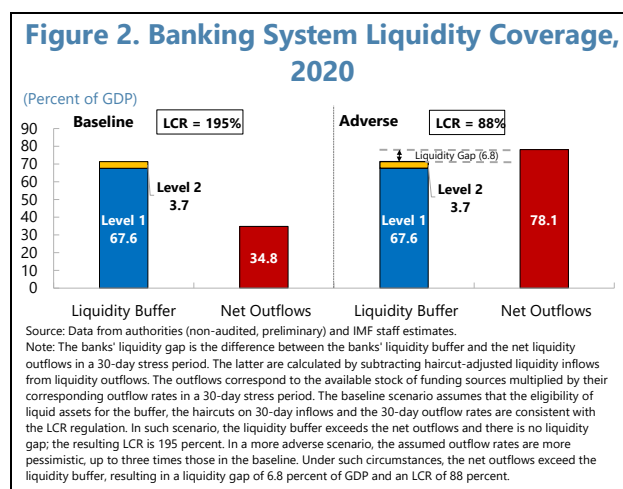
⁴ The weights of the ARA-EM metric in the case of an economy with a fixed exchange rate system are 30 percent on short-term external debt, 20 percent on other external liabilities, 10 percent on broad money, and 10 percent on exports. For details see IMF (2016).

⁵ The formula of the ARA-EM metric includes M2. However, in the case of Andorra, unilateral euroization implies that there is no base money. Hence M2 is replaced with banks' resident demand deposits.

8. Euroization and the absence of a lender of last resort call for a broader assessment of Andorra’s reserve adequacy, beyond the BoP perspective. The government may wish to maintain additional fiscal savings to smooth unexpected fluctuations in revenue or spending, particularly at times when financing may become more difficult or costly.

9. To supplement the traditional metrics, IMF staff constructed a measure of liquidity needs of the government. In the absence of a lender of last resort, the Andorran government is responsible for using reserve assets to cover for any liquidity shortages faced by the government itself, and any liquidity gap faced by the banks. The measure of ‘liquidity needs’ constructed by IMF staff accounts for: (i) the government’s BoP-related needs; (ii) a fiscal buffer; and (iii) the banks’ liquidity gap.

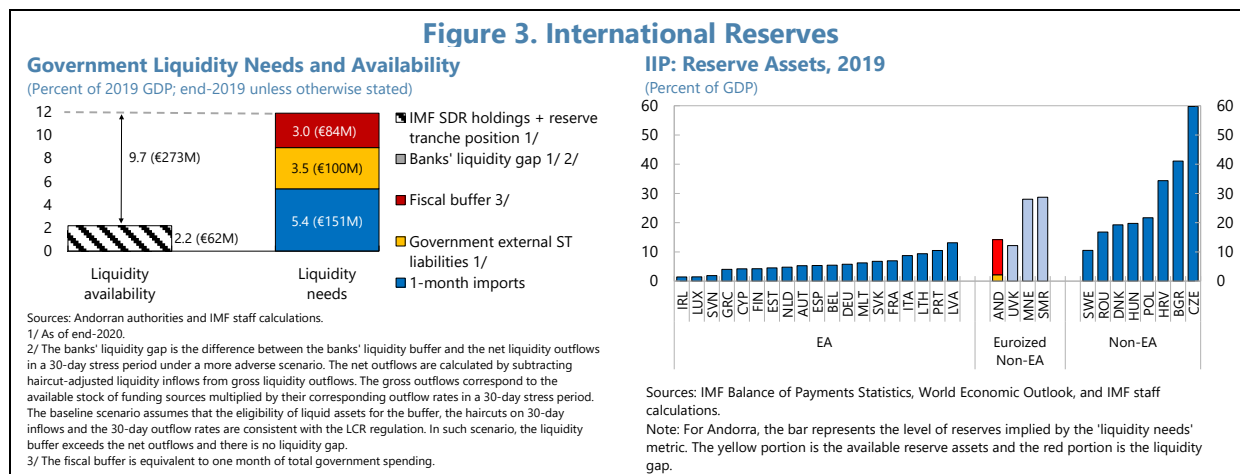
- **The BoP-related needs include 1 month of imports of goods and services and the short-term external public debt.** The rationale for including imports in a measure of the government’s liquidity needs is that the government is the ultimately responsible for providing necessity goods to its population, including imported goods. For example, during the pandemic, the Andorran government imported medical supplies and equipment, including testing kits and vaccines. The inclusion of the short-term external public debt captures rollover risks.
- **The fiscal buffer is proxied by one month of total public spending, based on the analysis by IMF (2013) for Kosovo.** Given the fiscal discipline imposed by the fiscal rule, the government of Andorra has not had the need to build large fiscal buffers in the past (see Annex II in the Staff Report (IMF, 2021)). However, the challenges posed by the pandemic highlighted the importance of having large enough fiscal buffers in the event of a crisis.
- **The assessment of the banks’ liquidity gap is based on Basel III’s Liquidity Coverage Ratio (LCR).** The LCR is defined as the ratio between high-quality liquid assets and net liquidity outflows over a 30-day stress period, which needs to be at least 100 percent since January 2021 (BIS, 2013).⁶ In the baseline scenario, under outflow assumptions that are consistent with the LCR regulation and more pessimistic than those experienced in comparable countries, the liquidity buffer exceeds the net outflows. The LCR of the



⁶ The LCR requirement was adopted by Andorra in 2018, by transposition of EU CRDIV/CRR regulation. This adoption was done in phases, requiring banks to have an LCR of at least 60 percent by January 2019, of at least 80 percent by January 2020 and of at least 100 percent starting from January 2021.

system is 195 percent as of end-2020, well above the 100 percent requirement.⁷ Thus, there is no liquidity gap in the banking system that needs to be taken into account as part of the international reserves calculation (Figure 2). However, if we consider an extremely adverse scenario—with outflow rates three times those in the baseline—then net outflows exceed the liquidity buffer and the LCR falls below 100 percent requirement, resulting in a liquidity gap of 6.8 percent of GDP in the banking system. The impact on individual banks in such an adverse scenario would differ based on their funding structures. Those banks that display sharp declines in the LCR tend to rely more on funding from retail deposits (particularly those less stable), on unsecured funding from nonfinancial corporates and sovereigns not covered by deposit insurance, or on undrawn but committed credit facilities to retail and other nonfinancial customers. While it is admissible for the banks’ LCR to fall below 100 percent under stress, the existing regulation requires banks to build plans in coordination with AFA to quickly re-build their buffers.

10. Liquidity needs of the government are estimated to be €334 million, equivalent to 12 percent of GDP (Figure 3, left), provided the banking system liquidity risk is well-supervised. Almost 75 percent of the liquidity needs correspond to BOP-related needs. The fiscal buffer adds to the remaining 25 percent. The banks’ liquidity gap is zero in the baseline, in compliance with the LCR regulation. However, this may not necessarily be the case if the outflow rates in a more adverse scenario turn out to be larger than those assumed in our baseline calculation. In the illustrative adverse scenario considered previously, with outflow rates up to three times those of the baseline scenario, and in the absence of a lender of last resort, liquidity needs of the government could go up to 18.7 percent of GDP if the banking sector has a liquidity gap of 6.8 percent of GDP.



⁷ The LCR of 195 percent computed by staff is close to the official estimate of 187 percent produced by the Andorran Financial Authority (AFA). The small difference is stemming from the higher level of granularity of the data used by AFA, which allows it to apply differential assumptions to specific items.

11. The amount of reserves implied by the ‘liquidity needs’ metric for Andorra in the baseline scenario is consistent with the levels of international reserves observed in some euroized economies. With reserve needs amounting to 12 percent of GDP, Andorra would be within the levels of international reserves observed in other euroized economies, such as Kosovo, whose reserve assets amount to 12.2 percent of GDP (Figure 3, right). Other euroized countries have larger levels of reserve assets; for instance, in the case of San Marino, the large need to compensate for liquidity gaps in a large banking sector. Countries that are not euroized need to build a reserve buffer to also cope with exchange rate fluctuations and currency mismatches. Euro Area (EA) countries do not face these risks and also have access to the lender of last resort facility of the eurosystem; therefore, they tend to have relatively lower levels of reserve assets (5.8 percent of GDP, on average).

12. The available liquidity is enough to only cover 18 percent of the reserve needs of the government, in the baseline scenario. In the absence of a central bank and with the government only holding relatively small deposits in domestic banks, the only reserve assets of the country at the moment correspond to the reserve tranche position and the SDR holdings at the Fund, which amount to €62 million or 2 percent of GDP.⁸ The government does not own any other external assets. As a result, a gap between the government’s reserve needs and liquidity availability of €273 million (10 percent of GDP) remains and should be closed over time. This gap could be larger if the banks have a liquidity shortage.

13. The government should gradually build up a stock of reserve assets. The country’s exposure to liquidity risks makes it necessary to start building the stock of reserve assets as early as in 2021, to the extent allowed by the recovery from the pandemic. Staff have suggested different options to the authorities to accumulate the needed reserves. First, to make contributions to the compensation account (Annex II in the Staff Report (IMF, 2021)) in a way that they qualify as reserve assets (e.g., by depositing them in a bank account abroad). With the fivefold increase of the compensation account contributions to 0.5 percent of the central and local governments total expenditure, which was approved in 2020, the government would be able to accumulate 0.8 percent of GDP in 2021–26. If the contribution rate to the compensation account is further increased from 0.5 percent to 5 percent, then the government would be able to accumulate reserves for 7.5 percent of GDP in 2021–26. Second, to save all future fiscal surpluses, which are projected to materialize starting from 2023. The cumulative fiscal surpluses in 2023–26 are projected to be 2.9 percent of GDP. Third, to issue additional €100 million (equivalent to about 3 percent of GDP) of debt and save the proceeds in a way that they qualify as reserve assets. While this option would have an associated interest cost, it would not harm debt sustainability and would allow for a faster accumulation of reserves.

⁸ A possible SDR allocation of US\$650 billion to boost reserves and help global recovery from COVID-19 is currently under discussion (<https://www.imf.org/en/News/Articles/2021/03/23/pr2177-imf-execdire-discuss-new-sdr-allocation-us-650b-boost-reserves-help-global-recovery-covid19>). If approved, it would increase Andorra’s available reserves and result in a lower liquidity gap, but the quantities are still uncertain.

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