



PEOPLE'S REPUBLIC OF CHINA—MACAO SPECIAL ADMINISTRATIVE REGION

2022 ARTICLE IV CONSULTATION DISCUSSIONS— PRESS RELEASE; AND STAFF REPORT

April 2022

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2022 Article IV consultation with People's Republic of China—Macao Special Administrative Region, the following documents have been released and are included in this package:

- A **Press Release**
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on a lapse-of-time basis, following discussions that ended on January 21, 2022, with the officials of People's Republic of China—Macao Special Administrative Region on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on March 14, 2022.
- An **Informational Annex** prepared by the IMF staff.

The documents listed below have been or will be separately released.

Selected Issues

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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IMF Executive Board Concludes 2022 Article IV Consultation Discussions with People's Republic of China—Macao Special Administrative Region

FOR IMMEDIATE RELEASE

Washington, DC – April 12, 2022: On March 29, 2022, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation¹ with the People's Republic of China—Macao Special Administrative Region (SAR) and considered and endorsed the staff appraisal without a meeting on a lapse-of-time basis.

Macao SAR has been hit hard by the COVID-19 crisis, but the strong policy response has helped stabilize employment and consumption, while preserving people's health and safety. After a 54 percent of GDP decline in 2020, the economy have expanded by 18 percent in 2021 supported by the partial recovery of the gaming sector. Consumer prices were on average unchanged during 2021 relative to 2020, reflecting subdued domestic demand. Due to the still relatively low tourism receipts, the current account surplus in 2021 is estimated at less than half of its pre-crisis level.

Macao SAR's recovery is expected to continue. GDP is projected to grow by 15.5 percent in 2022 driven by the gradual return of foreign tourists and the recovery of domestic demand. Boosted by increasing investment linked to the issuance of new gaming concessions and further integration with the Guangdong-Hong Kong-Macao Greater Bay Area (GBA), growth is expected to accelerate to 23 percent in 2023 before gradually converging to its long-term potential of around 3.5 percent over the medium term. Headline inflation is projected to accelerate in 2022 and stabilize at around 2.5 percent over the medium term.

In the absence of rapid progress towards economic diversification, the current account balance is set to return to pre-pandemic levels when tourist arrivals to Macao SAR return to pre-pandemic levels. While better-than-expected control of the pandemic and faster-than-envisaged integration with the GBA could contribute to stronger growth than currently envisaged, a re-intensification of the COVID-19 pandemic, tighter regulation of the gaming industry, and an increase in Macao SAR's financial sector stress could slow down the pace of the recovery. Due to its geographical location, Macao SAR's high exposure to climate-related shocks poses long-term concerns.

¹ Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

Executive Board Assessment²

In concluding the 2022 Article IV consultation discussions with the People's Republic of China–Macao Special Administrative Region (SAR), Executive Directors endorsed the staff's appraisal, as follows:

Despite a strong policy response, the pandemic took a large toll on Macao SAR's economy, highlighting the need for economic diversification. The government's policy response helped to stabilize employment and consumption, while preserving people's health and safety. However, the collapse of the economic activity, mostly on account of weak services exports, highlighted Macao SAR's overreliance on the gaming industry. Macao SAR's high exposure to climate-related disasters adds to the economy's long-term challenges. The government's diversification strategy, if implemented well, could reduce the economy's vulnerability to shocks.

Macao SAR's recovery is expected to continue going forward, but it will take time before the economy fully regains pandemic induced losses. The gradual return of foreign tourists and the strengthening of domestic demand will support the near-term recovery, while increasing investment, linked to the issuance of new gaming concessions, and further integration with the GBA will boost medium term growth. However, given the depth of the economic losses during the pandemic, the level of GDP is expected to surpass its pre-crisis level only in 2025. In the absence of rapid progress towards economic diversification, the current account balance is set to return to pre pandemic levels as tourists return to Macao SAR.

Large downside risks remain. A resurgence of the COVID-19 pandemic could stall Macao SAR's near-term recovery and undermine the medium-term viability of the gaming sector. Some uncertainty remains regarding the proposed amendments to Macao's gaming law, which in combination with the recent ban on the gaming services' marketing in the Mainland, clouds the outlook of the gaming sector. Potential large-scale defaults in Mainland China's real estate sector and a sudden growth slowdown in Mainland China pose risks to Macao SAR's economy and financial system. The decline in households' debt servicing capacity due to the pandemic induced income losses and pressures on non-financial firms from tighter global financial conditions could negatively affect the banking system. Climate change is a long-term concern for the economy.

In staff's preliminary assessment, Macao SAR's external position in 2021 was substantially stronger than warranted by medium term fundamentals and desirable policies. Macao SAR's persistent saving investment gap, in part, is driven by high precautionary savings and subdued investments.

A mutually reinforcing near-term policy mix is needed to support the recovery. A safe reopening of the economy, underpinned by a further increase in vaccination rates and establishing additional travel corridors, will lay the ground for a strong recovery. Adjusting the fiscal policy stance from contractionary to neutral and changing its composition to support inclusion and growth would help the recovery. Banks' monitoring of borrowers, including from the Mainland, should be strengthened, and conservative provisioning should be encouraged to guard against potential asset quality deterioration due to the pandemic and negative spillovers from Mainland China. The insolvency and debt resolution and restructuring frameworks should be enhanced, including through the use of special out-of-court solutions, to avoid overloading

²The Executive Board takes decisions under its lapse-of-time procedure when the Board agrees that a proposal can be considered without convening formal discussions.

the court system and support growth. The residency-based LTV capital flow management measure and macroprudential measure should be phased out. The implementation of countercyclical fiscal policy and maintenance of flexible labor markets, a healthy banking sector, and adequate reserve coverage will ensure the continued success of the exchange rate regime.

A multiprong package of structural reforms is needed to bridge the gap in skill composition and overcome barriers to economic diversification. Advancing the government's diversification agenda will require investments in skill building and infrastructure, including for digital infrastructure, enhancing the effectiveness of public institutions, and improving business environment. The integration with the GBA provides opportunities for Macao SAR to access a larger pool of skilled labor and offshore some economic activities. It is important to balance the efforts to promote financial sector development with the need to preserve financial stability and integrity by further strengthening the regulatory and supervisory framework. The cooperation between different government agencies responsible for the diversification agenda should be strengthened to enhance the effectiveness of the government's diversification efforts.

Climate adaptation measures should be strengthened. Public investments in key areas of climate related vulnerabilities should be scaled up and early warning systems to monitor and evaluate Macao SAR's exposure to climate change risks further enhanced to mitigate climate related risks. Improving the understanding and management of financial risks due to climate change would help shield the financial system from climate related risks.

A well-articulated medium term fiscal strategy is key for buttressing diversification and climate resiliency efforts. Increasing spending on education, healthcare, and climate resilient public infrastructure throughout the medium term will support the recovery now, while addressing bottlenecks for diversification and increasing the economy's resilience to climate change going forward. A credible medium/long term fiscal framework provides necessary tools to effectively address trade-offs from multiple demands on the fiscal policy, which would be hard to achieve within the current annual budget process.

Table 1. Macao SAR: Selected Economic and Financial Indicators, 2017-27

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
					Est	Projections						
	(Annual percentage change, unless otherwise specified)											
National accounts												
Real GDP	10.0	6.5	-2.5	-54.0	18.0	15.5	23.3	18.6	9.8	5.1	3.5	
Total domestic demand	-0.2	-1.7	-0.7	-10.1	3.0	5.8	3.3	3.9	4.0	4.0	4.9	
Consumption	2.1	4.1	3.4	-7.2	4.6	6.0	2.5	2.5	2.8	2.9	3.2	
Investment	-4.1	-6.1	-18.4	-17.2	-1.4	5.3	5.7	8.0	7.1	7.1	9.2	
Net exports 1/	10.0	6.2	-0.5	-49.0	15.8	10.0	20.7	16.1	7.6	2.9	0.9	
Exports	16.8	9.8	-2.2	-65.1	69.9	16.1	32.2	20.7	11.1	5.8	3.2	
Imports	7.8	4.9	-4.1	-14.7	47.2	6.1	12.5	6.5	6.1	5.3	4.3	
Gross fixed capital formation (In percent of GDP)	19.8	16.7	13.8	25.9	23.0	21.6	18.5	16.7	16.2	16.5	17.3	
National savings (In percent of GDP)	50.3	50.2	47.9	40.7	36.6	25.0	33.2	39.0	42.5	43.5	59.4	
Prices and employment												
Headline inflation (Average)	1.2	3.0	2.8	0.8	0.0	2.8	2.7	2.6	2.6	2.5	2.5	
Terms of Trade	0.2	-0.2	0.8	0.3	-0.4	-1.5	-0.2	-0.1	0.1	0.2	0.3	
Housing prices	16.8	7.5	-0.8	-2.3	-47.7	...	...	...	...	...	...
Median monthly employment earnings	0.0	6.7	6.3	-11.8	...	...	...	...	...	...	...
Unemployment rate (Annual average)	2.0	1.8	1.7	2.6	3.0	2.6	1.8	1.8	1.8	1.7	1.7	
(In percent of GDP, unless otherwise specified)												
Fiscal accounts												
General government balance	13.3	13.3	14.4	-21.2	-16.6	-10.2	5.0	11.7	12.2	12.1	13.9	
Budgetary Central Government Balance	10.6	12.4	12.0	-21.2	-16.5	-9.9	4.4	9.7	10.2	10.1	10.9	
Revenue	29.1	29.7	29.4	22.6	26.4	23.5	29.6	30.4	30.1	29.7	30.4	
Expenditure	18.5	17.4	17.4	43.7	42.9	33.4	25.1	20.8	19.9	19.7	19.5	
Extra-budgetary funds balance	1.0	0.1	0.6	-2.8	-0.5	-0.2	-0.4	0.6	0.6	0.6	1.6	
Social security funds balance	1.7	0.8	1.7	2.9	0.4	0.0	0.9	1.4	1.4	1.4	1.4	
Balance of payments												
Current account	30.8	33.0	33.8	15.2	13.8	3.5	14.9	22.4	26.3	27.1	26.2	
Goods	-21.1	-19.6	-19.1	-30.1	-36.6	-34.5	-30.1	-26.1	-24.7	-24.3	-24.1	
Services	67.3	69.0	69.8	32.4	49.0	53.2	61.5	65.8	67.5	67.3	66.3	
Income	-15.4	-16.4	-16.8	12.9	1.4	-15.2	-16.5	-17.3	-16.4	-16.0	-15.9	
Financial account	27.5	23.6	18.3	18.6	6.0	8.1	12.7	20.6	22.9	25.0	26.0	
FDI	1.5	-3.2	-9.4	34.5	14.1	5.8	0.8	4.1	4.5	5.2	6.1	
Portfolio investment	20.6	-8.0	28.3	23.7	23.9	23.4	22.7	22.0	21.4	21.0	20.5	
Financial derivatives	-0.6	-0.6	-1.1	-1.4	-1.4	-1.4	-1.3	-1.3	-1.3	-1.3	-1.3	
Other investment	6.1	35.4	0.5	-38.2	-30.7	-19.8	-9.5	-4.2	-1.8	0.1	0.8	
Errors and omissions	-2.7	-9.9	-12.7	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Reserve Asset	0.4	-0.5	2.7	10.4	7.8	-4.6	2.2	1.8	3.5	2.1	0.2	
Foreign exchange reserves (In billions of U.S. dollars) 2/	20.2	20.3	22.2	25.1	26.7	...	...	...	...	...	...
Gross external debt	174.0	185.8	223.4	557.3	569.4	507.3	418.6	320.0	305.0	290.0	275.0	
(Annual percentage change)												
Financial sector												
Loans	14.2	12.4	6.5	9.4	...	...	...	...	...	...	...
Resident	8.4	10.2	2.6	3.1	...	...	...	...	...	...	...
Mortgages	6.9	12.6	9.9	4.5	...	...	...	...	...	...	...
Others	9.2	9.1	-1.0	2.4	...	...	...	...	...	...	...
Nonresident	21.0	14.7	10.5	15.2	...	...	...	...	...	...	...
Mortgages	-1.6	-3.7	0.1	-1.8	...	...	...	...	...	...	...
Others	21.5	16.0	9.7	15.4	...	...	...	...	...	...	...
Domestic credit to residents (In percent of GDP)	113.2	113.2	116.3	261.4	...	...	...	...	...	...	...
Domestic credit to non-residents (In percent of GDP)	108.1	113.4	124.5	312.7	...	...	...	...	...	...	...
Household domestic credit to residents (In percent of GDP)	60.2	61.7	69.1	155.3	...	...	...	...	...	...	...
Household domestic credit to non-residents (In percent of GDP)	4.6	4.9	5.2	11.1	...	...	...	...	...	...	...
Interest rates												
Discount window base rate (level, %, eop)	1.8	2.8	2.0	0.5	...	...	...	...	...	...	...
Saving deposit rate (level, %, average)	0.0	0.0	0.1	0.0	...	...	...	...	...	...	...
MAIBOR 3-month (level, %, eop)	1.3	2.4	2.4	0.4	...	...	...	...	...	...	...
Tourism												
Visitor arrivals	5.4	9.8	10.1	-85.0	...	...	...	...	...	...	...
Gaming revenue	19.0	14.0	-3.5	-79.2	...	...	...	...	...	...	...
Exchange rate												
MOP per USD, period average	0.4	0.6	0.0	-1.0	...	...	...	...	...	...	...
Nominal effective exchange rate (average, +=appreciation)	-0.1	-2.5	3.0	-0.2	...	...	...	...	...	...	...
Real effective exchangerate (average, +=appreciation)	-0.9	-0.9	0.1	1.1	...	...	...	...	...	...	...
Memorandum items:												
Nominal GDP (In millions of U.S. dollars)	50,441	55,285	55,205	25,586	29,905	35,246	44,856	54,847	61,807	66,446	70,373	
Per capita GDP (In thousands of U.S. dollars)	78	83	81	37	44	51	63	76	85	90	95	

Sources: CEIC; Haver Analytics; IMF, International Financial Statistics; national authorities; and IMF staff estimates.

1/ Contribution to annual growth in percentage points.

2/ Fiscal reserve fund was established on January 1, 2012 with a transfer from foreign exchange reserves.



PEOPLE'S REPUBLIC OF CHINA—MACAO SPECIAL ADMINISTRATIVE REGION

STAFF REPORT FOR THE 2022 ARTICLE IV CONSULTATION DISCUSSIONS

March 14, 2022

KEY ISSUES

Context: Macao SAR's recovery is expected to continue in 2022, but it will take several years before the economy returns to its pre-crisis level. Although strong fiscal support and the financial strength of Macao SAR's casino groups cushioned employment and consumption, the sharp contraction in activity exposed Macao SAR's vulnerability to external forces affecting the inflow of tourists. Short-term risks to the outlook include a re-intensification of the COVID-19 pandemic and an increase in Macao SAR's financial sector stress. The heavy impact of the pandemic on Macao SAR's growth highlights the need to diversify the economy beyond the gaming industry. The high exposure to climate-related shocks poses long-term concerns.

Policies: A set of mutually reinforcing policies can support the near-term recovery while enhancing the economy's resilience to shocks in the medium term.

- *Fiscal:* Premature withdrawal of policy support should be avoided. Fiscal measures should be better targeted to vulnerable groups and job creation to enhance the recovery and inclusion. Additional spending on healthcare, education and climate-resilient infrastructure will boost near-term demand while facilitating economic diversification and mitigating climate risks over the medium term. A medium-term fiscal strategy would support the diversification and climate resiliency efforts, while ensuring fiscal sustainability and intergenerational equity in the longer term.
- *Financial:* Strengthening the risk monitoring of borrowers, including from the Mainland, and enhancing the insolvency and debt resolution and restructuring frameworks would alleviate vulnerabilities in the financial system and support the recovery. Enhancing the regulatory and supervisory framework and strengthening cooperation with the Mainland supervisors would help minimize possible negative spillovers from the stress in the Mainland's property sector.
- *Structural:* Achieving the government's economic diversification objective will require concerted efforts in skill building, closing physical and digital infrastructure gaps, enhancing public institutions, and streamlining business regulation.
- *Climate change:* Scaling up public investments in critical infrastructure and coastal management as well as a better understanding and management of financial risks due to climate change would help mitigate climate-related risks.

Approved By
Helge Berger (APD)
and Anna Ilyina (SPR)

Discussions took place by video conference during January 10-21, 2022. The team comprised A. Stepanyan (head), C. Zhou (all APD), and T. Lan (STA). H. Berger (APD) joined the concluding meeting. Mr. Zhang, Alternate Executive Director, and Mr. Law (OED) attended the official meetings. P. Tanseco (APD) coordinated the production of the report.

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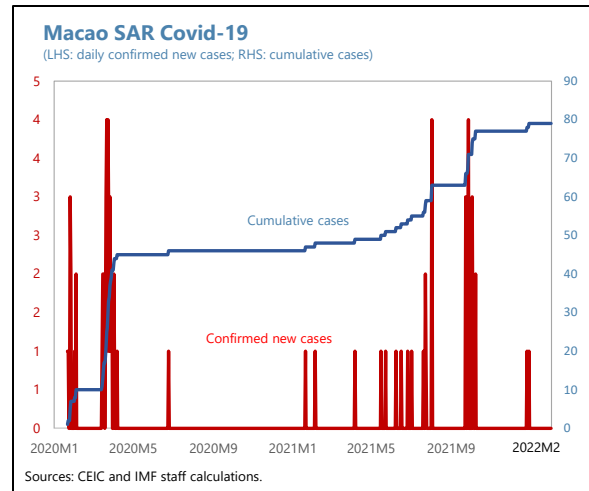
CONTEXT: VULNERABILITIES EXPOSED

1. Macao SAR has been hit hard by the COVID-19 crisis, but the strong policy response helped contain the spread of the virus and soften its economic impact.¹ Strict containment and border control measures helped preserve people's health and safety. Macao SAR has reported only 79 confirmed COVID-19 cases and no deaths as of February 15, 2022. Deploying its large fiscal reserves, the government helped stabilize employment and consumption with fiscal stimulus amounting to about 12 percent of GDP in 2020–21.

Strict containment and border control measures helped preserve people's health and safety. Macao SAR has reported only 79 confirmed COVID-19 cases and no deaths as of February 15, 2022. Deploying its large fiscal reserves, the government helped stabilize employment and consumption with fiscal stimulus amounting to about 12 percent of GDP in 2020–21.

2. However, the crisis brought Macao SAR's overreliance on the gaming sector into sharp relief. The gaming sector—the key growth driver in the past two decades—almost came to a stop as tourist flows dried up, including due to the introduction of strict travel restrictions in Mainland China. Despite the strong fiscal support and the financial strength of Macao SAR's casino groups cushioning employment and consumption, aggregate GDP shrank by 54 percent in 2020, mostly on the collapse of services exports (Figure 1). 2021 saw only a partial rebound, with GDP growing by 18 percent.

The gaming sector—the key growth driver in the past two decades—almost came to a stop as tourist flows dried up, including due to the introduction of strict travel restrictions in Mainland China. Despite the strong fiscal support and the financial strength of Macao SAR's casino groups cushioning employment and consumption, aggregate GDP shrank by 54 percent in 2020, mostly on the collapse of services exports (Figure 1). 2021 saw only a partial rebound, with GDP growing by 18 percent.



3. This points to significant challenges going forward. The dependence on the gaming sector makes Macao SAR's economy vulnerable to external forces affecting the inflow of tourists, such as travel restrictions related to the pandemic. Cognizant of these vulnerabilities, the authorities are pursuing an ambitious economic diversification agenda, but its implementation will take time.

DEVELOPMENTS AND OUTLOOK: ELEVATED UNCERTAINTY AHEAD

4. The return to positive growth in 2021 was helped by the partial recovery of the gaming sector. The establishment of a travel corridor lifted quarantine requirements for qualified visitors between Macao SAR and the Mainland and breathed life into the gaming sector. The export of gaming services increased by 45 percent in 2021, though from a low base. Non-gaming activity declined in 2021 as domestic demand remained weak (Figure 4). Employment weakened in 2021, mostly due to the poor performance of the non-gaming sector, particularly construction and trade. The unemployment rate stood at 3 percent—almost double the pre-pandemic level. Despite some volatility during the year, consumer prices on average remained unchanged in 2021 relative to 2020 (Figure 5).

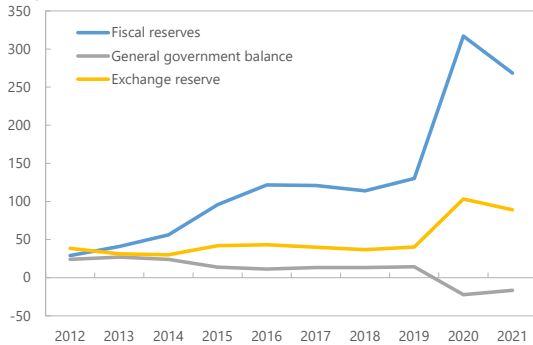
¹ These consultation discussions form part of the Article IV consultation with the People's Republic of China.

Figure 1. Macao SAR: Economic Structure, Impact of the Pandemic, and Policy Response

The pre-pandemic accumulation of policy buffers

Reserves

(In percent of GDP)

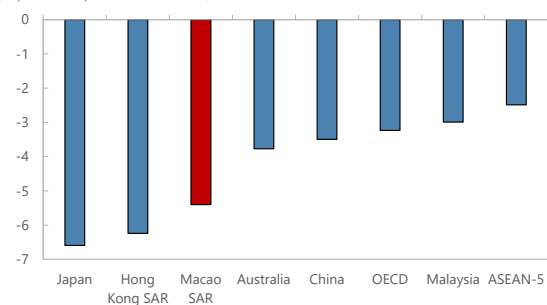


Sources: Haver, Financial Services Bureau, and IMF staff calculations. (est) Note: 2021 is estimated.

...enabled a strong policy response to the COVID-19 crisis.

Changes in Cyclically Adjusted Primary Balances (CAPB)

(In percent of potential GDP, 2020)



Sources: WEO and IMF staff calculations. Note: Difference in CAPB between 2020 and 2019; Median for ASEAN-5; CAPB for Macao SAR includes non-gaming sector only.

Nevertheless, the decline in GDP was dramatic....

Gaming Contribution to Real GDP Growth

(In percent, year-on-year growth)

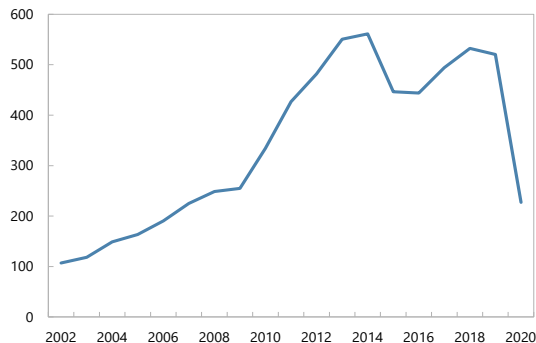


Sources: DSEC and IMF staff calculations. Note: Gaming contribution to growth is calculated using Gross value added by gaming & junket activities at producers' prices in chained (2019) prices.

...at least temporarily erasing most of the last decade's GDP per capita gains....

Macao SAR: GDP per Capita

(At constant USD, 2000=100)

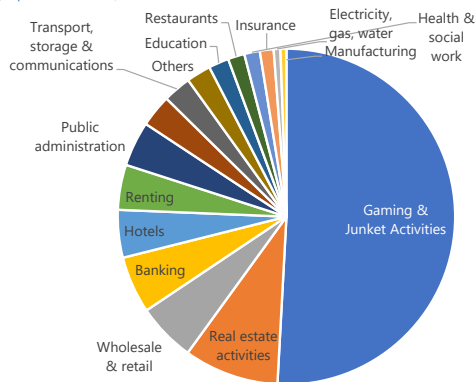


Sources: Haver, and IMF staff calculations.

...which reflects the economy's overreliance on the gaming sector...

Macao SAR Industrial Structure as of 2019

(In percent of total)

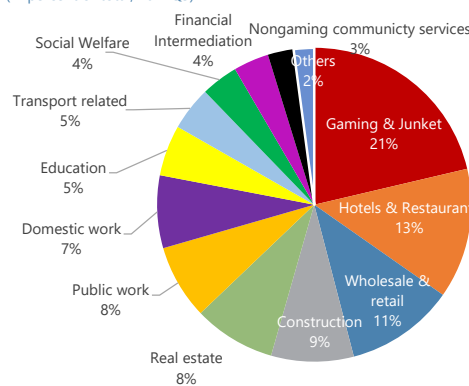


Sources: The Monetary Authority of Macao (AMCM) and IMF staff calculations.

...including for employment.

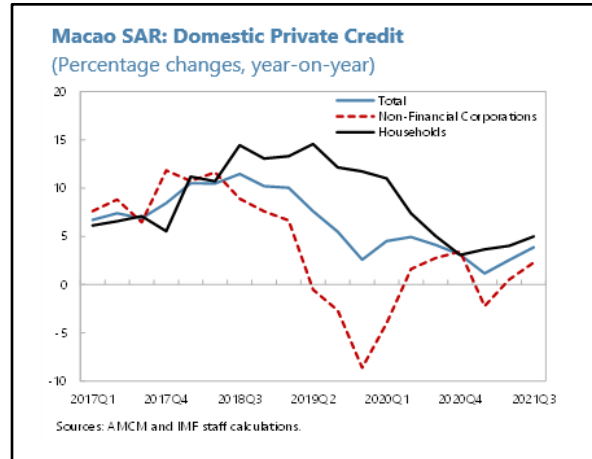
Employment

(In percent of total, 2021Q3)



Sources: Statistics and Census Service DSEC for Macao. Note: Others include Manufacturing, Electricity, gas, and water, and others.

5. The financial sector weathered the pandemic well, but pockets of vulnerability are emerging. The banking system remains well capitalized with a solid level of liquidity and profitability. Capital adequacy is in double digits, and the NPL ratio remains low, in part due to policy support (Figure 7).



- Risks from credit to households are increasing.* Driven by the loans to households, domestic credit picked up in 2021 after remaining largely flat during 2020. Overall, household debt to banks, half of which are mortgages, accounted for more than half of the stock of domestic bank credit in 2021, exposing banks to household income shocks. With most household borrowing based on flexible interest rates, the large share of household credit also adds to banks’ sensitivity to interest rate risks. Banks are also subject to risks from extreme-weather-caused physical damage to borrowers’ property, given Macao SAR is exposed to cyclones and costal floods.
- The external side of banks’ balance sheet has a large exposure to Mainland China.* Banks’ foreign assets account for 65 percent of total assets, while 50 percent of total liabilities are to non-residents. About 70 percent of foreign liabilities have less than one year maturity, creating funding vulnerabilities. Mainland China accounts for about half of foreign assets and 40 percent of foreign liabilities of Macao SAR’s banks (Figure 6). The construction sector accounts for 7 percent of Macao SAR’s banks’ total loans to non-residents.

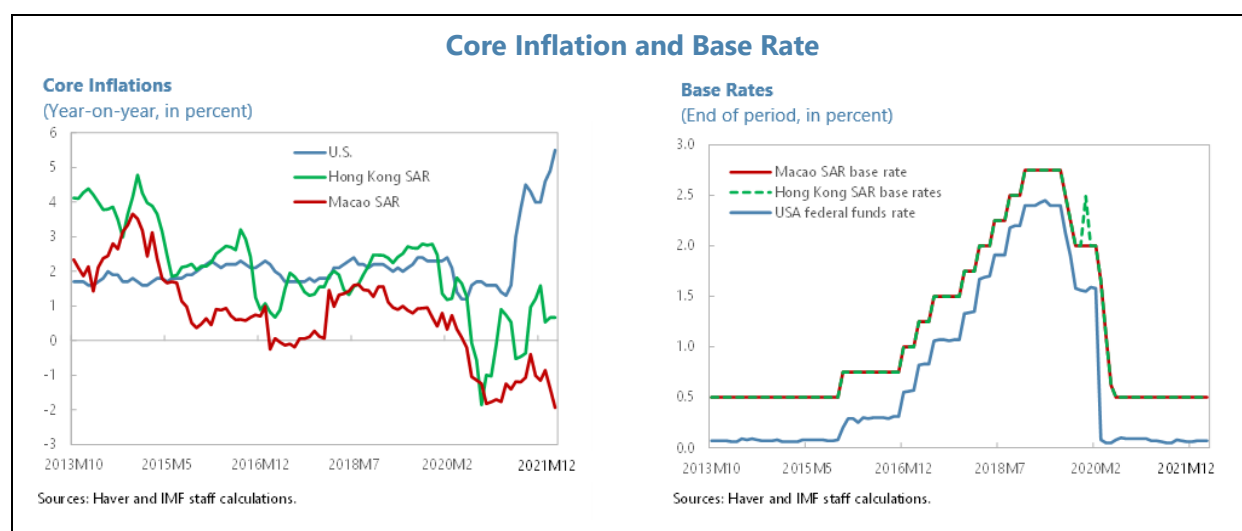
6. The government deployed a forceful policy response to the pandemic.

- Significant fiscal support, focused on household support.* A strong fiscal stimulus in 2020 (5.5 percent of GDP) was followed by another 6.5 percent of GDP stimulus in 2021. The support was made possible by significant fiscal buffers and foreign currency (FX) reserves: Macao SAR entered the pandemic with 130 percent of GDP fiscal and 40 percent of GDP FX reserves. More than half of the policy support was intended for households (text table). The measures included cash handouts, consumption vouchers, and subsidies for utility fees. The stimulus also included government-subsidized training for the unemployed. The support measures for SMEs and self-employed were in the form of direct transfers, under the condition of not laying off employees, subsidies for utility fees, interest-free loans for SMEs, interest subsidy for SMEs and self-employed individuals, and tax reliefs and exemptions.

Identified Fiscal Discretionary Response to COVID-19		
Measures	2020	2021*
	In percent of GDP	
Healthcare	0.2	
Consumption E-vouchers	2.9	2.5
Transfers to low wage earners	1.9	0.4
Transfers to elderly		0.2
Local tourism promotion	0.1	0.1
Transfers to self-employed and SMEs	1.2	0.4
Tax relief for self-employed and SMEs	1.0	0.4
Subsidized professional training	0.2	0.1
Interest-free loans and interest subsidy for SMEs	1.0	
Interest subsidy schemes for self-employed individuals	0.1	
Subsidy for utility fees	0.3	
Total	8.8	4.2

Sources: Macao SAR authorities and IMF staff calculations.
 *The numbers for 2021 are preliminary and for some categories the amounts were not available at the time of this report’s publication, thus the column for 2021 provides a partial picture.

- *Financial relief.* To release funds for supporting lending activity, banks were exempt from maintaining liquid assets against deposits from the Macao SAR's Fiscal Reserve Fund. A temporary principal payment holiday scheme for mortgage and SME loans was also introduced.
- *Expansionary monetary measures, in line with Macao SAR's peg.* The policy rate was reduced in response to the pandemic to support the exchange rate peg. The pataca has been pegged to the Hong Kong dollar since 1977 and set at 1.03 patacas per Hong Kong dollar since 1983 under the currency board arrangement. Following the Hong Kong SAR's Base Rate, the Macao Monetary Authority reduced the Base Rate of the discount window from 2 to 0.5 percent at the onset of the pandemic and has kept it at the low level since then.
- *Successful vaccination campaign.* The government launched a three-phase voluntary vaccination campaign on February 9, 2021. A user-friendly booking platform was introduced, and multiple easily accessible vaccination sites were set up. As of February 15, about 75.4 percent of the population was fully vaccinated, while 13 percent received booster shots.



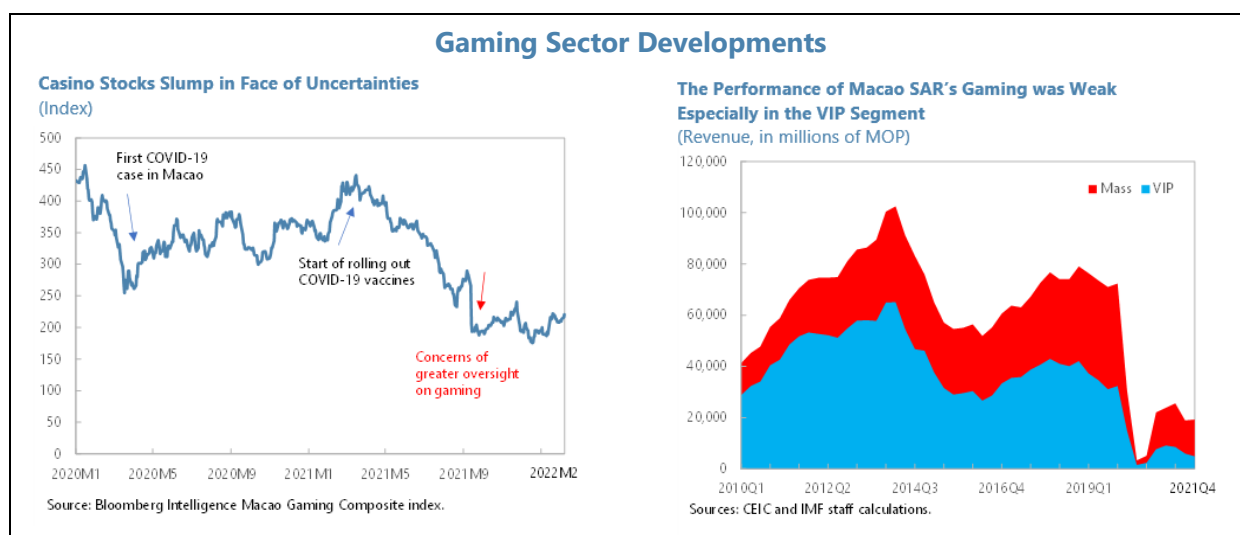
7. Macao SAR's overall external position remained substantially stronger than warranted by medium-term fundamentals and desirable policies in 2021.² The current account surplus in 2021 is estimated at less than half of its pre-pandemic level due to the still relatively low tourism receipts. The primary income balance turned into a 7.6 percent of GDP surplus in 2021 from an 11 percent deficit in 2019 due to a significant drop in reinvested earnings from the gaming sector. The real effective exchange rate depreciated by 7 and 2 percent in 2021 relative to end-2019 and end-2020 respectively. FX reserves at US\$26.7 billion in end-2021 exceeded the end-2019 level by more than US\$4 billion. Based on the External Balance Assessment (EBA) and accounting for Macao SAR-specific factors, staff's preliminary assessment is that the cyclically adjusted current account gap in 2021 is around 5.5–8.5 percent of GDP (Appendix I). Macao SAR's persistent savings-investment gap is, in part, driven by high precautionary savings and subdued investments.

² The external sector assessment is based on projected 2021 outcomes and will be updated as actual data become available.

8. The recovery is expected to continue. GDP is projected to grow by 15.5 percent in 2022 driven by a recovery in domestic demand and the gradual return of foreign tourists. Boosted by increased investments, owing to the issuance of new gaming concessions, and further integration with the Guangdong-Hong Kong-Macao Greater Bay Area (GBA), growth is expected to accelerate to 23 percent in 2023 before gradually converging to its long-term potential growth rate of around 3.5 percent. However, given the depth of the economic losses during the pandemic, the level of GDP is expected to surpass its pre-crisis level only in 2025. Inflation is projected to accelerate in 2022 and stabilize at around 2.5 percent over the medium term. In the absence of rapid progress towards economic diversification, the current account balance is set to return to pre-pandemic levels as tourists return to Macao SAR.

9. The balance of risks is tilted to the downside. While better than expected control of the pandemic and faster than envisaged integration with the GBA could contribute to stronger growth than currently envisaged, most risks point to a lower growth (Appendix II).

- *Resurgent pandemic:* A resurgence of the COVID-19 pandemic and associated mobility restrictions could stall Macao SAR's recovery in the near term and prompt persistent behavioral changes (e.g., a permanent shift toward online gaming), undermining the medium-term viability of the gaming sector.
- *Tighter regulation of the gaming industry:* The proposed amendments to Macao SAR's gaming law have addressed a number of investor concerns, but some uncertainty remains. The recent ban on the gaming services' marketing in the Mainland poses risks to the outlook of the VIP segment of the market, which accounted for about one-third of the total gaming revenues in 2021.
- *Spillovers from Mainland China:* Potential large-scale defaults in Mainland China's real estate sector and a sudden growth slowdown in Mainland China could prompt negative spillovers to Macao SAR's economy and financial system.
- *Financial risks:* The pandemic took a large toll on households' income reducing their debt-servicing capacity, which could potentially impact banks and threaten financial stability. Tighter global financial conditions could pressure non-financial firms, with knock-on effects on the banking system.
- *Climate change:* Intensification of climate-related risks, owing to insufficient efforts to reduce carbon emissions globally, could adversely affect both financial institutions and corporates.



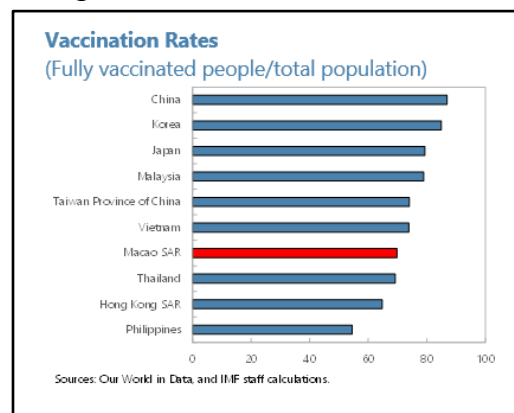
10. The authorities broadly shared staff’s assessment of the economic outlook and risks. They expect the economic recovery to continue going forward but highlighted the larger-than-usual uncertainty around economic projections. Similar to staff, the authorities considered the uncertain and prolonged pandemic a key risk to the near-term outlook but were less concerned about behavioral shift towards online gaming due to the pandemic since Macao SAR remains the only jurisdiction in the People’s Republic of China where gaming is legal. Among other risks, the authorities also emphasized pandemic-induced deterioration in banks’ asset quality. The authorities argued that the proposed amendments to the gaming law aim to ensure the sector’s long-term sustainability and take into account concerns from the general public and industry representatives. Separately, while agreeing with the staff’s external sector assessment, the authorities noted difficulties in conducting the assessment during the pandemic.

POLICIES: BUILDING A STRONGER ECONOMY

A. Near-Term Policies: Policy Support Remains Critical

11. The strength of the recovery hinges on the safe reopening of the economy to tourists. Building on the government’s vaccination efforts, further boosting vaccination rates will be critical in this regard. Moreover, establishing additional travel corridors between Macao SAR and other economies with high inoculation and low infection rates could accelerate the recovery of the gaming sector.

12. The authorities reaffirmed their commitment to ensuring the health and safety of Macao SAR residents. They will continue strengthening pandemic-prevention efforts, including through further improving vaccination rates. The economic strategy behind the authorities’ pandemic control and prevention measures is to ensure the border with Mainland China—the key source of tourists—remains open.



13. Fiscal support remains essential. The fiscal tightening envisaged in the 2022 budget is premature, given the still-large output gap and significant downside risks. Despite the large fiscal deficits in 2020–21, fiscal space remains substantial with end-2021 fiscal reserves at 268.7 percent of GDP. While general government revenue is budgeted to increase by about 4 percent in 2022 compared with 2021, general government expenditure is set to decline by 7 percent, largely on account of social benefits. With unchanged revenue from the gaming sector, the cyclically adjusted non-gaming fiscal balance is estimated to tighten by about 3 percent of GDP in 2022. With an ample fiscal space, a neutral fiscal stance in 2022 would be better tailored to support economic activity in the non-gaming sector and mitigate any long-term impact of the pandemic on the economy's potential.

14. At the same time, fiscal policy should be recalibrated to promote growth. Targeting cash transfers to the most vulnerable households, which have a high propensity to consume, can be more effective in supporting the recovery and inclusion. Incentivizing job creation will support the recovery and facilitate resource reallocation. Additional spending on healthcare and education and scaling up in macro-critical and climate-resilient public investments will boost demand in the near term and facilitate economic diversification and adaptation to climate change in the medium term (see paragraph 28). To ensure the efficiency of COVID-19-related public spending, it is important to follow the same strict guidelines for fiscal transparency and accountability as for all other government spending.

15. The authorities acknowledged the importance of fiscal policy for the near-term recovery. They stressed that, while government expenditure is budgeted to decline in 2022 compared with the 2021 outcome, the implementation of social welfare programs will continue. This will safeguard people's livelihoods and support the recovery. In addition, the authorities have stepped up job placement and matching efforts, particularly for youth, to support the functioning of the labor market. Moreover, with ample fiscal reserves, additional fiscal support could promptly be provided if needed.

16. Proactive policies are needed to prevent the economic downturn from morphing into a financial sector stress and to guard against possible negative spillovers from Mainland China.

- *Private sector indebtedness:* Staff recommends strengthening the monitoring of borrowers to better anticipate the increase of insolvencies due to the pandemic. Encouraging banks to conservatively provision will help withstand a potential asset quality deterioration. Enhancing the insolvency and debt resolution and restructuring frameworks, including through the use of special out-of-court solutions, would avoid overloading the court system and support growth.
- *Spillovers from Mainland China:* Staff advocates for enhancing the regulatory and supervisory framework to manage risks from the significant exposure to Mainland China. Monitoring of credit risk of borrowers from Mainland China should be further strengthened. In addition, forward-looking risk assessments and close supervisory cooperation with the Mainland would help minimize the potential for regulatory arbitrage. Moreover, the liquidity position of banks with large short-term foreign liabilities should be carefully monitored.

- *Macroprudential policy:* Staff reiterates its call to phase out the residency-based LTV capital flow management measure and macroprudential measure ([IMF Country Report No. 19/123, Appendix IV](#)). The authorities have introduced this measure in response to a potential risk from soaring property prices fueled by demand from non-residents. However, since 2019 this risk has abated as residential prices have plateaued and residential property transactions by non-residents have fallen. Linking the differentiation in LTV limits directly to banks' risk assessment of loans and borrowers could attain the same objective without residency-based differentiation.

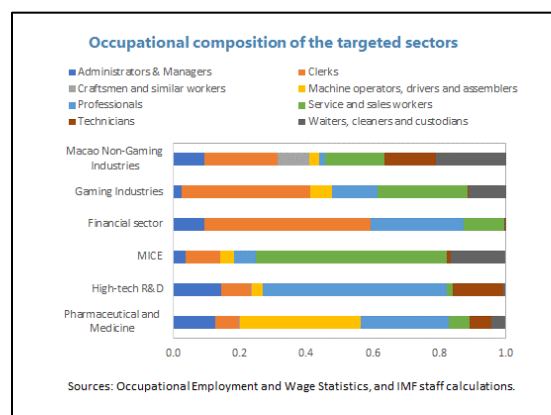
17. The peg to the Hong Kong dollar continues to serve Macao SAR well. The peg has provided a credible nominal anchor for economic and financial stability. The strength of the exchange rate regime is underpinned by the implementation of countercyclical fiscal policy, flexible labor markets, a healthy banking sector, and adequate reserve coverage (Appendix I). Maintenance of these policies will ensure the continued success of the exchange rate regime.

18. The authorities are aware of potential vulnerabilities in the financial sector and are proactively taking measures to mitigate the risks. To guard against possible spillovers from the Mainland, the AMCM surveyed banks on their exposure to the Mainland's property sector, which were assessed as not showing a significant exposure requiring immediate supervisory action. In addition, some banks have dedicated units specialized in credit risk assessment of borrowers from the Mainland. The AMCM has also signed an MOU with the People's Bank of China and conducts regular bilateral meetings with supervisors from the Mainland. The AMCM urges banks to periodically review the credit risk assessment of their clients and the adequacy of provisioning to better prepare for possible adverse scenarios. The authorities noted that the households' still solid debt-servicing capacity and the significant share of mortgages in household debt, which tend to be less risky, mitigates banks' risks from their exposure to households. The authorities are carefully monitoring liquidity positions of banks with large short-term external liabilities. They still see merit in the residency-based LTV measure. Nevertheless, the authorities plan to conduct analysis on the feasibility to adopt alternative measures.

B. Medium-Term Policies: Increasing the Economy's Resilience

Finding New Growth Engines Through Economic Diversification

19. The government has developed a diversification strategy that, if implemented well, can substantially reduce the economy's vulnerability to shocks. The recently released Master Plan of the Development of the Guangdong-Macao Intensive Cooperation Zone (GMICZ) envisions the development of four industries: (i) scientific and technological research; (ii) traditional Chinese medicine; (iii) meetings, incentives, conferences, and exhibitions (MICE); and (iv) modern financial services. The aim of the GMICZ is to facilitate Macao SAR's integration into the GBA, which can provide a broader platform for Macao SAR's economic diversification. However, meeting the skill demand of the targeted sectors could be challenging because of the limited supply



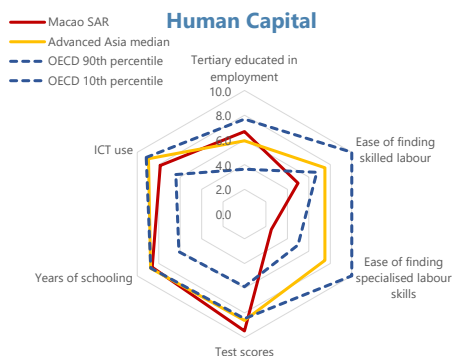
of relevant skills in Macao SAR's labor market and the high cost of occupational mobility (Selected Issues Paper, Chapter I).

20. While the government made some progress in promoting the development of modern financial services, further advances require addressing structural bottlenecks. Macao SAR's bond trading platform, established in 2018, offers services of bond issuance, listing, registration, custody, trading, and settlement. In December 2021, the Central Securities Depository (CSD) was established. The AMCM coordinated with all local e-wallet-issuing banks and payment service providers to launch a cross-QR-code-payment services initiative, "Simple Pay", allowing merchants to accept all local QR-code payment tools with a single point-of-sale (POS) terminal or QR code. In October 2021, the Cross-boundary Wealth Management Connect Scheme was launched making it easier for investors from Mainland China to invest in Macao SAR and vice versa. Macao-owned financial institutions can also set up banking and insurance institutions in the GMICZ. The government's vision also includes for Macao SAR's financial sector to link Mainland China with Portuguese-speaking countries, including by providing real time settlement for RMB. Advancing further the government's agenda for development of modern financial services will require addressing structural obstacles, such as limited supply of skilled labor, gaps in physical and ICT infrastructure and effectiveness of public institutions, and the high regulatory burden on firms (Figure 2; Selected Issues Paper, Chapter II).

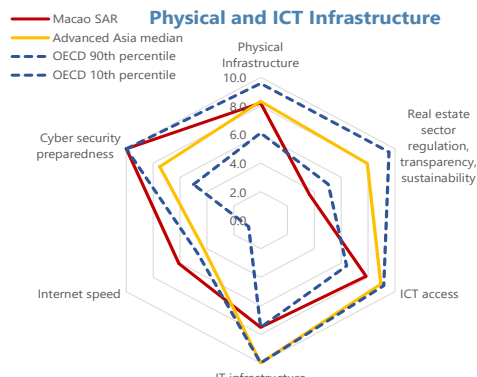
Figure 2. Macao SAR: Factors Conducive for Development of Financial Centers

Macao SAR has a high share of tertiary educated people in the labor force but finding skilled labor is challenging.

Macao SAR enjoys good cyber security preparedness but can improve infrastructure, including ICT.



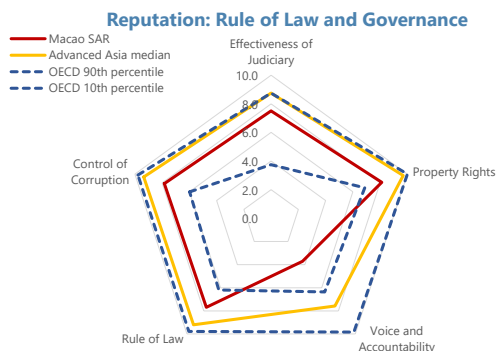
Sources: International Labor Organization (ILO), United Nations (UN)-ICT Development Index, World Bank "Human Capital Index 2020", Economist Intelligence Unit (EIU)-Risk Briefing Database, and IMF staff calculations. Notes: Some of these indicators are perception based constructed using survey results, and their point estimates are surrounded by considerable uncertainty.



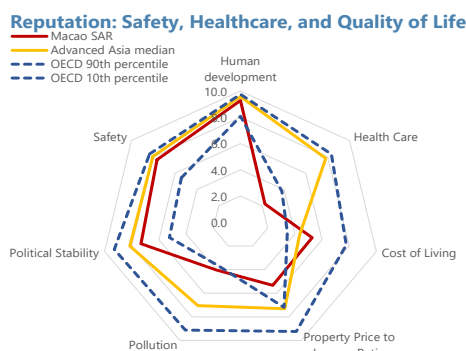
Sources: EIU, Worldwide Broadband Speed League, UN-ITU ICT Development Index, and IMF staff calculations. Notes: Some of these indicators are perception based constructed using survey results, and their point estimates are surrounded by considerable uncertainty.

There is room to enhance governance and rule of law....

...as well as improve healthcare and housing affordability.



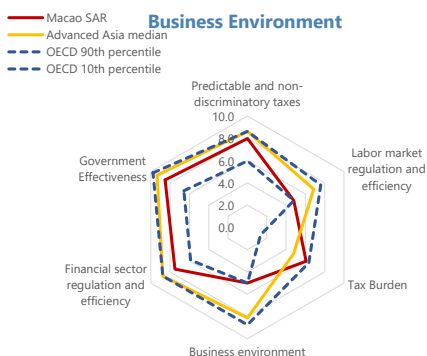
Sources: EIU; World Governance Indicators (WGI), D. Kaufman (Natural Resources Governance Institute and Brookings Institutions, and A. Kraay (World Bank), 2017; and IMF staff calculations. Notes: Some of these indicators are perception based constructed using survey results. The confidence band around point estimates for control of corruption is (6.6; 8.5), rule of law is (6.9; 8.4), and voice and accountability is (2.8; 5.2).



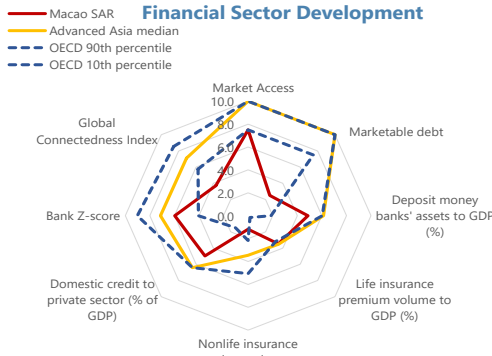
Sources: Mandelley; Numbeo; EIU; and IMF staff calculations. Notes: Some of these indicators are perception based constructed using survey results, and their point estimates are surrounded by considerable uncertainty.

Business and labor regulations are onerous compared with peers.

Availability of marketable debt and market access is limited in Macao SAR compared with peers.



Sources: EIU; World Governance Indicators (WGI), D. Kaufman (Natural Resources Governance Institute and Brookings Institutions, and A. Kraay (World Bank), 2017; and IMF staff calculations. Notes: Some of these indicators are perception based constructed using survey results. The confidence band around the point estimate for government effectiveness is (7.9; 9.5).



Sources: EIU, DHL-Global Connectedness Index, World Bank Global Financial Development Database, and IMF staff calculations. Notes: Some of these indicators are perception based constructed using survey results, and their point estimates are surrounded by considerable uncertainty.

Notes: Scores are normalized from 0 to 10, with 0 being the worst, and 10 being the best. Advanced Asian economies include Australia, Hong Kong SAR, Japan, South Korea, New Zealand, and Singapore. See Selected Issues Paper, chapter II for detailed description of indicators and data sources.

22. Bridging the gap in the skill composition to support the diversification, and further development of modern financial services will require a multipronged approach. In this regard, staff recommends:

- *Skill building:* Investing in outcome-orientated occupational and on-the-job training as well as strengthening science-business linkages to facilitate the acquisition of skills and help narrow skill gaps. Administrative requirements for hiring non-resident skilled workers could be streamlined to help compete for foreign talent. The authorities' plans to introduce a "Talent Admission Regime" for attracting talents in key emerging industries and prepare a financial sector talent pool development plan are steps in the right direction.
- *Regional Integration:* Macao SAR could leverage opportunities offered by the increased integration with the GBA to access a larger pool of skilled labor and offshore some economic activities, capitalizing on the Mainland's comparative advantage in manufacturing.
- *Physical and ICT Infrastructure:* Closing the infrastructure gap vis-a-vis OECD countries, including for digital infrastructure, would allow Macao SAR to access skilled labor from remote locations. Efforts aimed at boosting the supply of public housing and reforming regulatory frameworks to increase housing supply by the private sector should continue ([IMF Country Report No. 19/123](#)).
- *Effective public institutions and business environment:* Increasing regulatory predictability, raising the effectiveness of the judiciary, and strengthening the protection of property rights as well as streamlining labor and business regulations will increase Macao SAR's attractiveness to domestic and foreign investors and facilitate resource reallocation toward expanding sectors. The authorities' efforts to introduce and upgrade relevant laws and regulations, including the Financial System Act and Trust Law, to support the development of modern financial services are welcome.
- *Financial supervision:* It is important to balance the government's efforts in promoting financial sector development with the need to preserve financial stability and integrity. The regulatory and supervisory framework should be further strengthened to manage potential risks from the expanding financial sector. Expansion of the financial services sector will also require measures to identify and mitigate money laundering/terrorism financing (ML/TF) risks.
- *Enhancing cooperation:* The government has many initiatives to promote its diversification agenda, including tax incentives for R&D spending and funding for research and innovation projects. However, these efforts are spread across different government agencies. Enhancing cooperation between these agencies would improve the effectiveness of the government's diversification efforts.

23. Actions to strengthen the Anti Money Laundering/Countering Terrorism Financing (AML/CFT) framework are welcome and should be sustained. The authorities have made good progress in addressing technical compliance deficiencies in the AML/CFT framework. Proposed amendments to the gaming law aim to combat illicit cross-border financial flows and money laundering. Further efforts are needed to strengthen the AML/CFT framework applicable to the offshore sector; improve the investigation and prosecution of laundering of foreign proceeds of crime, particularly through the gaming sector; establish the level of ML/TF risks of foreign-owned

entities operating in the jurisdiction; improve the understanding by trust and company service providers of ML/TF risks; and ensure that accurate beneficial ownership information is available readily and on a timely basis.

24. The authorities agreed with staff on the need for structural reforms to support economic diversification. The authorities acknowledged the importance of investment in human capital to facilitate the economy's diversification and appreciated staff's analytical work in these areas. They reaffirmed their commitment to continue upgrading financial infrastructure. Given Macao SAR's limitations in land and manufacturing capacity, the authorities viewed the GMICZ as a good platform for the commercialization of Macao SAR's research and development products. The authorities are also committed to strengthen the communication of relevant government agencies to ensure that investors understand the legal and licensing procedures at the pre-application stage to facilitate the process of obtaining industrial licenses.

Mitigating Climate Risks Through Adaptation

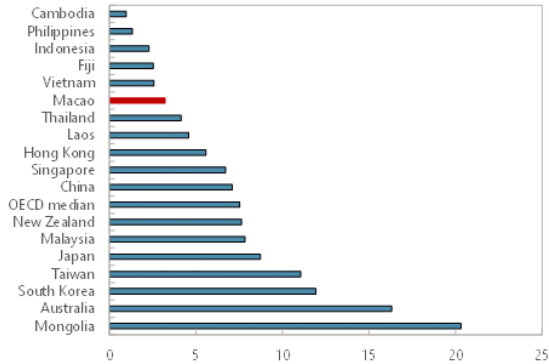
25. While not a major carbon emitter, Macao SAR is significantly affected by climate change. Macao SAR does not have carbon-intensive sectors and its carbon emissions per capita are one of the lowest in the region (Figure 3). However, it faces high risks of cyclones and medium risk of coastal floods and water scarcity. Some critical infrastructures are at risk of being below the annual flood level within ten years (Figure 3), which could be far more costly compared with the cost of climate-adaptation measures under the baseline (paragraph 28).

26. The government has formulated environmental-protection and disaster-prevention plans in a number of areas. Macao SAR developed the Disaster Prevention and Mitigation Ten-year Plan (2019–28), which aims to close the infrastructure gaps for disaster prevention and mitigation and improve climate risk assessment and early warning systems. The Macao SAR's environment protection plan (2021–2025) focuses on low carbon emission, air and water pollution prevention and control, waste management, and ecosystem conservation. The Macao Urban Master Plan 2020–2040 also incorporates some elements of disaster prevention and environmental protection. The AMCM together with the Environmental Protection Bureau (DSPA) and the Macao Association of Banks signed an advocacy statement to encourage the adoption of green financial standards widely recognized in the Mainland and international markets.

27. The implementation of the envisaged plans will be important, and further efforts are needed to mitigate climate risks. Macao SAR could benefit from further enhancing early warning systems to monitor and evaluate its exposure to climate change risks. The existing land-use planning strategy could be updated to address sea-level rise and storm surges. Measures are needed to further strengthen coastal protection and mitigate coastal erosion. Scaling up public investments in key areas of vulnerability, such as critical infrastructure, water security, and coastal management would be important. In addition, better understanding and management of financial risks due to climate change would help shield the financial system from climate-related risks. In this regard, the AMCM's plan to introduce financial disclosure requirements for banks on climate-related risks and issue climate-risk management guidance is welcome. Also, the authorities' effort to improve insurance coverage for SMEs in low-land areas when suffering property losses caused by typhoons is a step in the right direction.

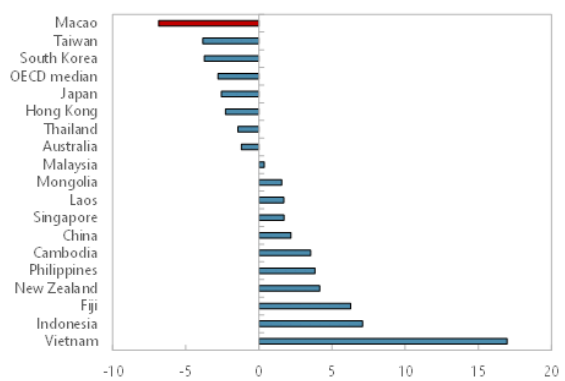
Figure 3. Macao SAR: Carbon Emission and the Impact of Rising Sea Level

CO2 Emissions per Capita
(Tonnes, as of 2019)



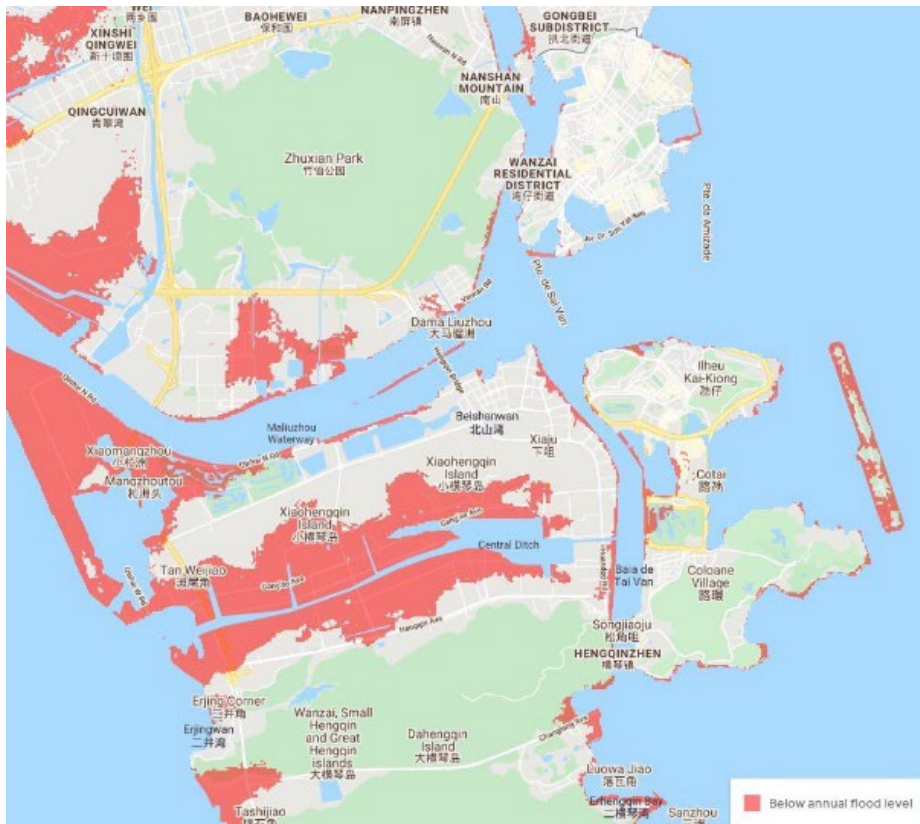
Sources: Ourworldindata.org, IMF staff calculations.

CO2 Emissions Growth
(In percent, as of 2019)



Sources: Ourworldindata.org, IMF staff calculations.

Macao SAR and Hengqin Island: Indicative Projection of Land Below Annual Flood Level by 2030



Note: This projection combines and uses globally-extensive local projections for sea level rise built on Kopp et al. Red marked area is projected to be below annual flood level in 2030.

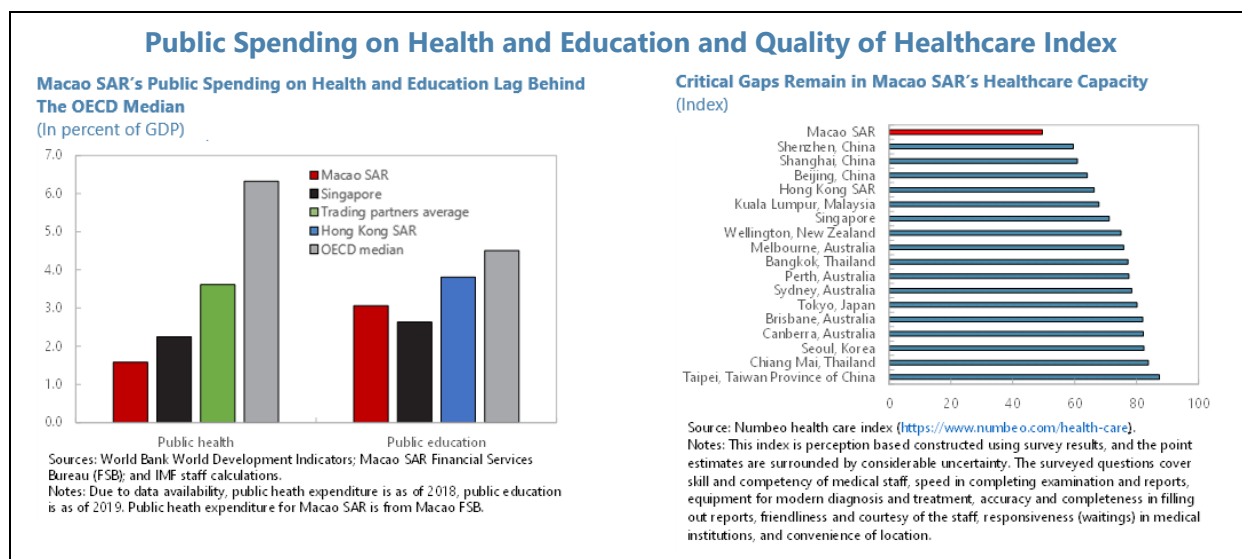
Source: Climate Central (<https://coastal.climatecentral.org/>)

28. The authorities are aware of the threats from climate change and taking steps to address climate-related challenges. The authorities highlighted that their multi-year plans on disaster prevention and environmental protection lay out important steps for combating climate-related risks. Specifically, the Macao SAR environment protection 5-year plan includes an action plan for carbon reduction, which is in line with Mainland China’s decarbonization plan. The authorities shared staff’s view on the need to scale up public investments in key areas of vulnerability and are exploring options to build a tide barrier in the inner harbor area to mitigate the impacts of rainstorm, flooding and typhoon.

Buttressing Diversification Efforts and Climate Resilience Through Fiscal Policy

29. A well-articulated medium-term fiscal strategy would help support the diversification and climate resiliency efforts. Increasing spending on education, healthcare, and climate resilient public infrastructure throughout the medium term will support the recovery now, while addressing bottlenecks for diversification and increasing the economy’s resilience to climate change going forward. Diversification would also help reduce external imbalances in the medium term. Specifically, staff recommends:

- *Investing in education and healthcare:* Closing half of the gap with the OECD average in public spending on education and healthcare in the next five years by increasing public spending in this area by 0.8 percent of GDP each year.
- *Investing in climate-resilient infrastructure:* Average annual investment cost for infrastructure upgrading, retrofitting, and coastal protection is estimated to be between 0.5 and 1.5 percent of GDP (October 2020 Fiscal Monitor).³ Given Macao SAR’s high exposure to climate-related risks, staff recommends the authorities to invest about 1.2 percent of GDP annually in climate-resilient infrastructure to mitigate climate risks.



³ Rozenberg and Fay 2019 argue that adaptation costs in Southeast Asia and Pacific regions are larger than average.

30. The trade-offs from multiple demands on the fiscal policy are better addressed in a credible medium/long-term fiscal framework (MLTFF) than in the current annual budget process. With no outstanding government debt and the balanced budget requirement of the Basic Law, the medium-term fiscal sustainability is not a concern. However, the advantage of a MLTFF is that it can preserve fiscal space for necessary fiscal measures by integrating all fiscal decisions into a well-specified framework with clear short- and medium-term priorities, steps to ensure efficiency of spending and tax policies, and clear guidelines and plans to ensure fiscal sustainability and intergenerational equity over the longer term ([IMF Country Report No. 19/123](#)).

31. The authorities indicated that their current fiscal framework serves Macao SAR well. With no outstanding government debt and a well-established system for managing Macao SAR's Fiscal Reserve, the balanced budget requirement stipulated in the Basic Law ensures the territory's medium-term fiscal sustainability. The authorities also highlighted that education, healthcare, and housing are high on the government's policy agenda. Therefore, these areas enjoyed the highest growth in public spending in the 2022 budget.

STAFF APPRAISAL

32. Despite a strong policy response, the pandemic took a large toll on Macao SAR's economy, highlighting the need for economic diversification. The government's policy response helped to stabilize employment and consumption, while preserving people's health and safety. However, the collapse of the economic activity, mostly on account of weak services exports, highlighted Macao SAR's overreliance on the gaming industry. Macao SAR's high exposure to climate-related disasters adds to the economy's long-term challenges. The government's diversification strategy, if implemented well, could reduce the economy's vulnerability to shocks.

33. Macao SAR's recovery is expected to continue going forward, but it will take time before the economy fully gains pandemic-induced losses. The gradual return of foreign tourists and the strengthening of domestic demand will support the near-term recovery, while increasing investment, linked to the issuance of new gaming concessions, and further integration with the GBA will boost medium-term growth. However, given the depth of the economic losses during the pandemic, the level of GDP is expected to surpass its pre-crisis level only in 2025. In the absence of rapid progress towards economic diversification, the current account balance is set to return to pre-pandemic levels as tourists return to Macao SAR.

34. Large downside risks remain. A resurgence of the COVID-19 pandemic could stall Macao SAR's near-term recovery and undermine the medium-term viability of the gaming sector. Some uncertainty remains regarding the proposed amendments to Macao's gaming law, which in combination with the recent ban on the gaming services' marketing in the Mainland, clouds the outlook of the gaming sector. Potential large-scale defaults in Mainland China's real estate sector and a sudden growth slowdown in Mainland China pose risks to Macao SAR's economy and financial system. The decline in households' debt-servicing capacity due to the pandemic-induced income losses and pressures on non-financial firms from tighter global financial conditions could negatively affect the banking system. Climate change is a long-term concern for the economy.

35. In staff's preliminary assessment, Macao SAR's external position in 2021 was substantially stronger than warranted by medium-term fundamentals and desirable policies.

Macao SAR's persistent saving-investment gap, in part, is driven by high precautionary savings and subdued investments.

36. A mutually reinforcing near-term policy mix is needed to support the recovery. A safe reopening of the economy, underpinned by a further increase in vaccination rates and establishing additional travel corridors, will lay the ground for a strong recovery. Adjusting the fiscal policy stance from contractionary to neutral and changing its composition to support inclusion and growth would help the recovery. Banks' monitoring of borrowers, including from the Mainland, should be strengthened, and conservative provisioning should be encouraged to guard against potential asset quality deterioration due to the pandemic and negative spillovers from Mainland China. The insolvency and debt resolution and restructuring frameworks should be enhanced, including through the use of special out-of-court solutions, to avoid overloading the court system and support growth. The residency-based LTV capital flow management measure and macroprudential measure should be phased out. The implementation of countercyclical fiscal policy and maintenance of flexible labor markets, a healthy banking sector, and adequate reserve coverage will ensure the continued success of the exchange rate regime.

37. A multiprong package of structural reforms is needed to bridge the gap in skill composition and overcome barriers to economic diversification. Advancing the government's diversification agenda will require investments in skill building and infrastructure, including for digital infrastructure, enhancing the effectiveness of public institutions, and improving business environment. The integration with the GBA provides opportunities for Macao SAR to access a larger pool of skilled labor and offshore some economic activities. It is important to balance the efforts to promote financial sector development with the need to preserve financial stability and integrity by further strengthening the regulatory and supervisory framework. The cooperation between different government agencies responsible for the diversification agenda should be strengthened to enhance the effectiveness of the government's diversification efforts.

38. Climate adaptation measures should be strengthened. Public investments in key areas of climate-related vulnerabilities should be scaled up and early warning systems to monitor and evaluate Macao SAR's exposure to climate change risks further enhanced to mitigate climate-related risks. Improving the understanding and management of financial risks due to climate change would help shield the financial system from climate-related risks.

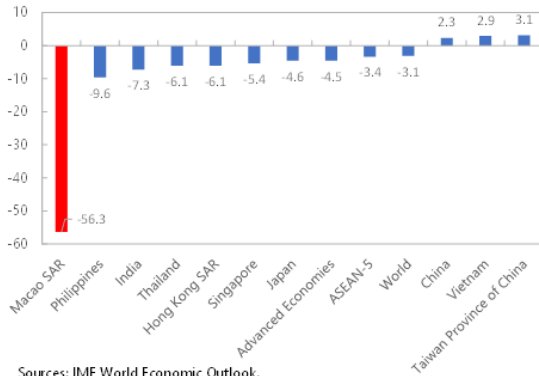
39. A well-articulated medium-term fiscal strategy is key for buttressing diversification and climate-resiliency efforts. Increasing spending on education, healthcare, and climate-resilient public infrastructure throughout the medium term will support the recovery now, while addressing bottlenecks for diversification and increasing the economy's resilience to climate change going forward. A credible medium/long-term fiscal framework provides necessary tools to effectively address trade-offs from multiple demands on the fiscal policy, which would be hard to achieve within the current annual budget process.

40. It is proposed that the next Article IV consultation discussions take place on the 24-month cycle.

Figure 4. Macao SAR: Real Sector Developments

Macao SAR experienced one of the largest declines in GDP in the region....

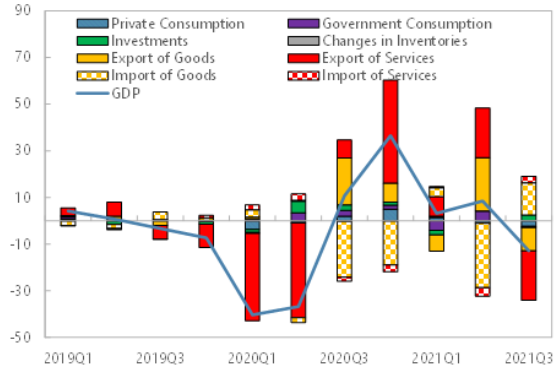
Real GDP Growth, 2020
(In percent, year-on-year)



Sources: IMF World Economic Outlook.

...driven by the plunge in export of services.

Contribution to GDP Growth
(Seasonal adjusted, quarter-on-quarter)



Sources: Haver, and IMF staff calculations.

Despite some signs of improvement in the gaming sector, the non-gaming sector's performance was poor....

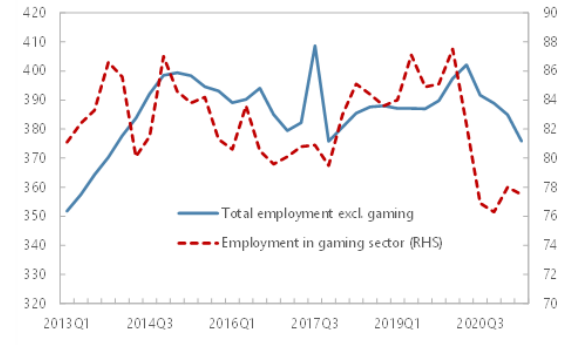
GDP and Export of Gaming Services
(In billions of 2019 MoP, seasonal adjusted)



Sources: Haver, and IMF staff calculations.

...and the employment development mirrored the development in the economic activity.

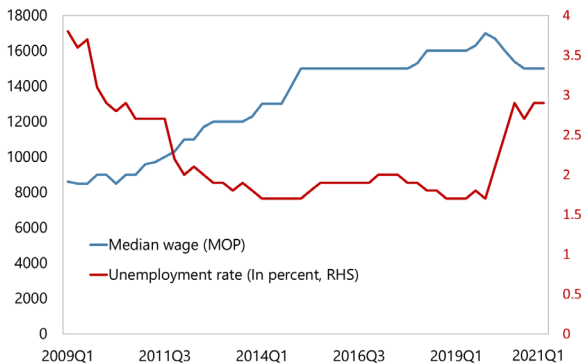
Employment
(Thousand people)



Sources: Haver and IMF staff calculations.

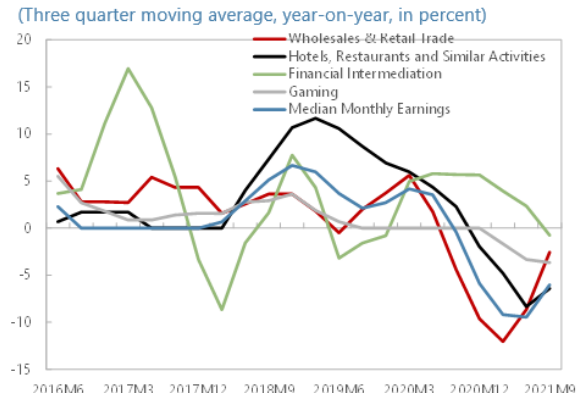
As a result, the unemployment rate doubled, and the median wage declined...

Labor Market
(LHS: MoP; RHS: In percent)



...putting downward pressures on household earnings.

Median Monthly Earnings Deterioration, Harming Household Financials
(Three quarter moving average, year-on-year, in percent)

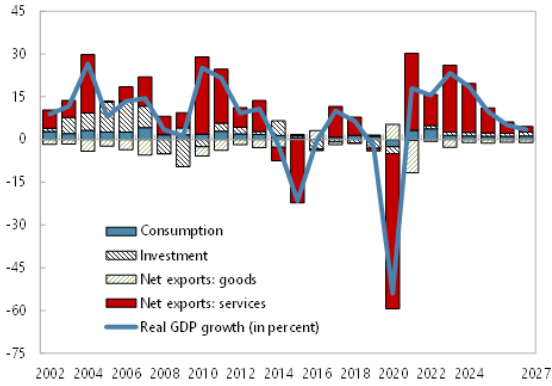


Sources: Macao SAR Statistics and Census Service, and IMF staff calculations.

Figure 4. Macao SAR: Real Sector Developments (Concluded)

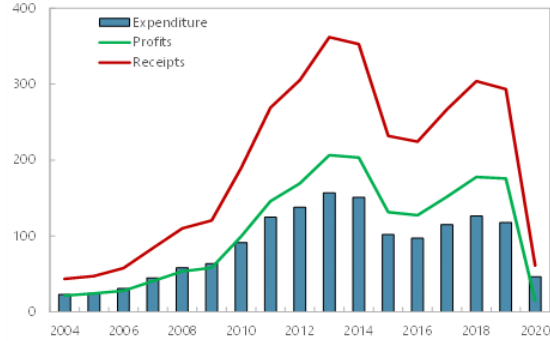
Macao SAR's GDP growth is mainly driven by movements in net export of services...

Contribution to Real GDP Growth
(In percentage points)



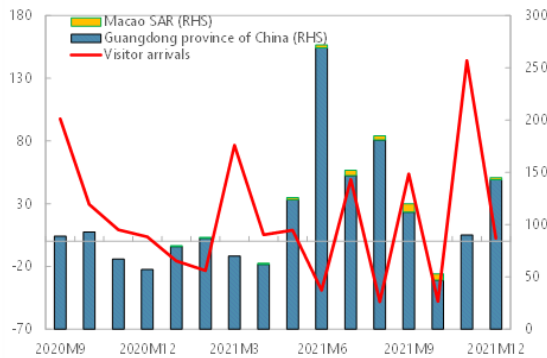
...and gaming tourism has been depressed since the pandemic...

Gaming Sector
(In billions of MoP)



...with visitors to Macao SAR following stop and go pattern due to reoccurring outbreaks...

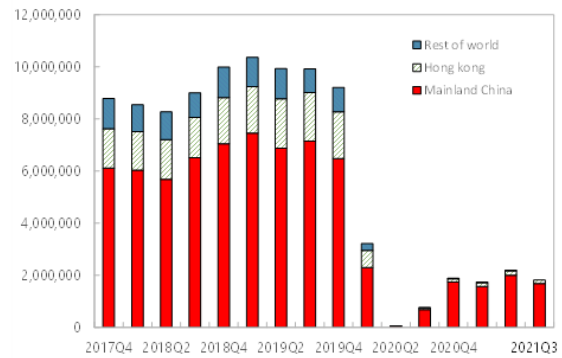
Stop and Go Tourism Recovery
(LHS: month-on-month percent, RHS: number of new cases)



Sources: CEIC.

...and the recent uptick in inbound tourism mainly due to Mainland visitors.

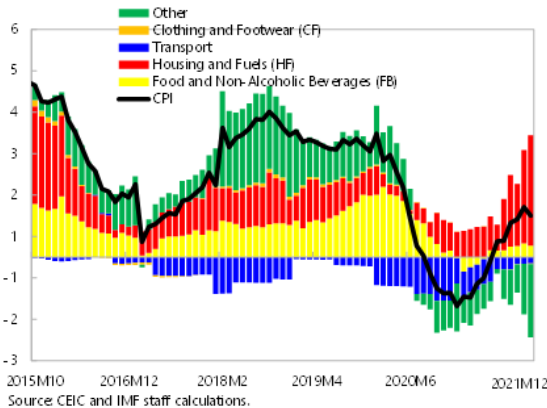
Visitor Arrivals
(Person)



Sources: Statistics and Census Service (DSEQ).

Prolonged deflation occurred since the pandemic, mainly driven by tourism-related components, such as transport.

CPI Growth Decomposition
(In percent)



Source: CEIC and IMF staff calculations.

Residential property prices remained flat.

Housing Prices
(Average price index, June 2014=100)

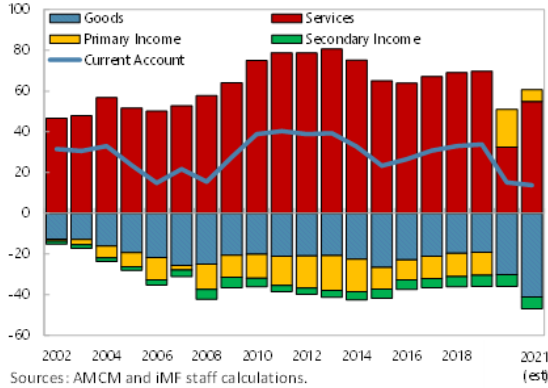


Sources: Haver, and IMF staff calculations.

Figure 5. Macao SAR: External Sector Developments

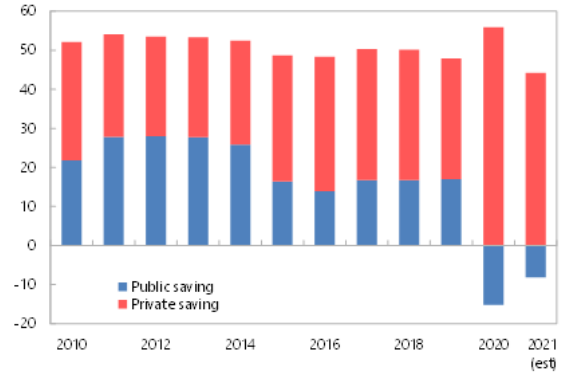
The collapse in services exports halved the current account surplus...

Current Account and Components
(In percent of GDP)



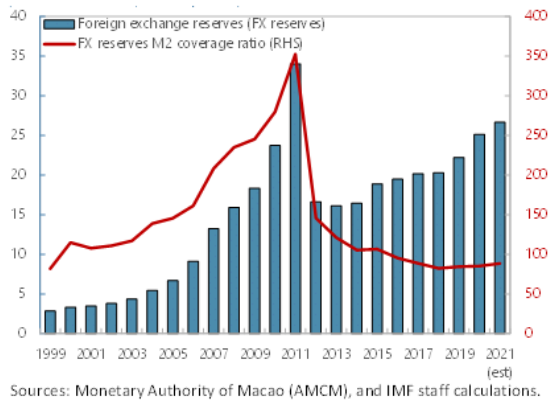
...and reduced public savings requiring a drawdown from the fiscal reserve to compensate the shortfall in revenues.

National Savings
(In percent of GDP)



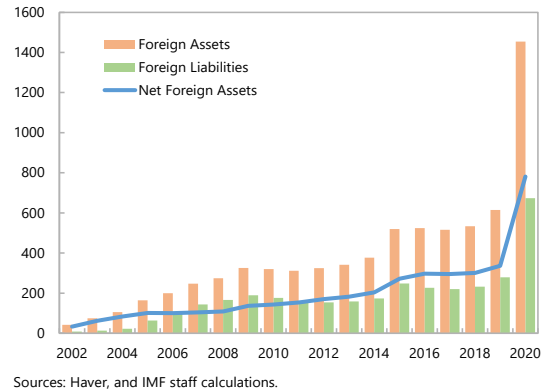
Nevertheless, the foreign exchange reserves continued to accumulate...

Foreign Exchange Reserves
(LHS: In billions of USD, RHS: In percent)



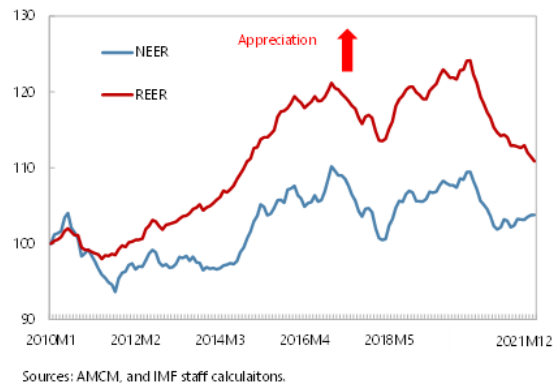
...further strengthening Macao SAR's net foreign asset position.

Estimated International Investment Position
(In percent of GDP)



Macao SAR's effective exchange rate depreciated since the pandemic...

Effective Exchange Rate
(Index, Jan 2010=100)



...driven by RMB appreciation and inflation differential with key trading partners.

REER Decomposition

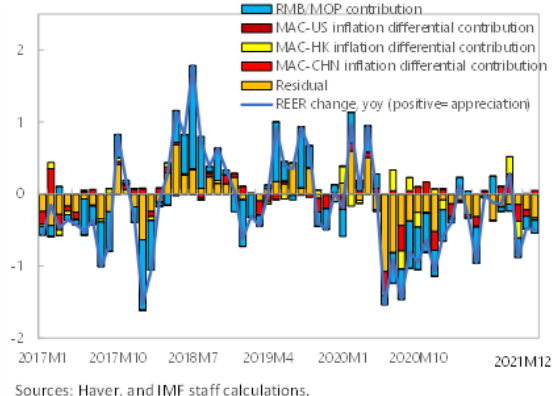
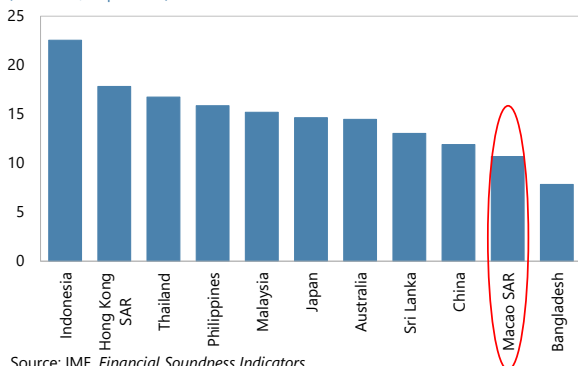


Figure 6. Macao SAR: Financial Soundness Indicators of Commercial Banks

Commercial banks are well capitalized....

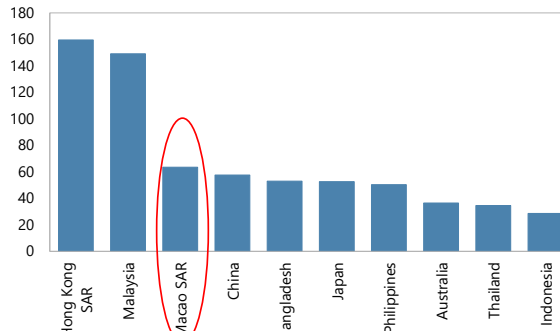
Regulatory Tier 1 Capital to Risk-Weighted Assets
(Q2-2021, in percent)



Source: IMF, *Financial Soundness Indicators*.

...and have plenty of liquidity.

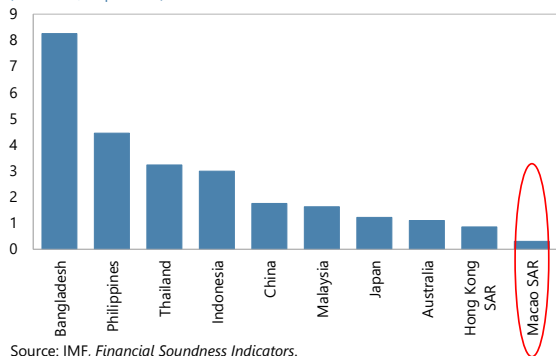
Liquid Assets to Short-Term Liabilities
(Q2-2021, in percent)



Source: IMF, *Financial Soundness Indicators*.

Non-performing loans are one of the lowest in the region.

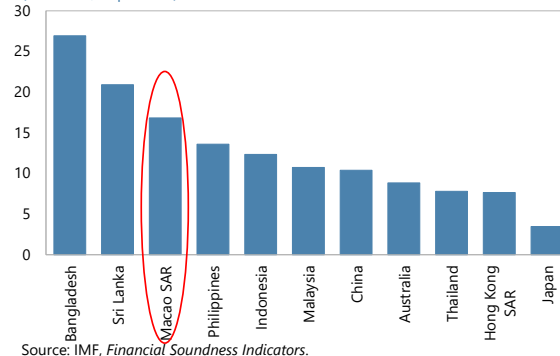
Nonperforming Loans to Total Gross Loans
(Q2-2021, in percent)



Source: IMF, *Financial Soundness Indicators*.

Banks enjoy a high level of profitability.

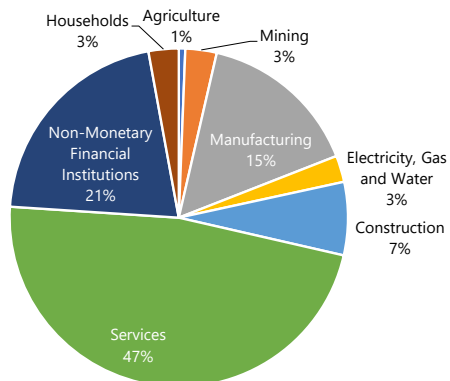
Return on Equity
(Q2-2021, in percent)



Source: IMF, *Financial Soundness Indicators*.

Almost half of loans to non-residents are in the services sector.

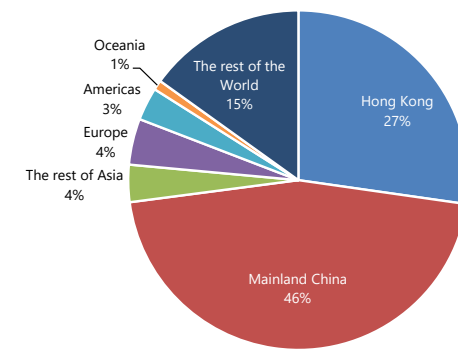
Macao SAR: Sectoral Distribution of Loans to Non-resident
(As of 2021Q2)



Sources: AMCM and IMF staff calculations.

Banks foreign assets are concentrated in Mainland China and Hong Kong SAR.

Macao SAR: Regional Distribution of Banks' Foreign Assets
(As of 2021Q2)

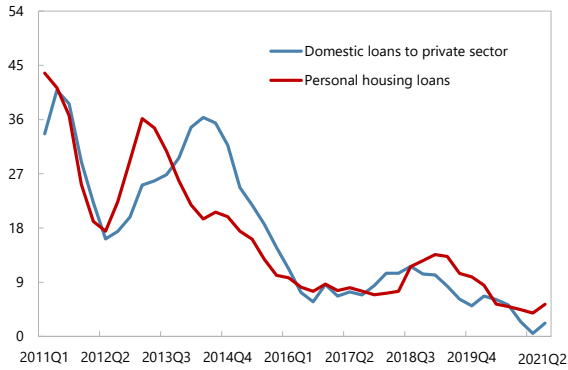


Sources: AMCM and IMF staff calculations.

Figure 7. Macao SAR: Banking Sector Developments

Credit growth to the private sector has remained low since the pandemic...

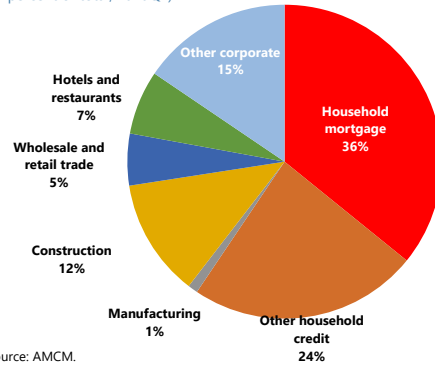
Domestic Loans to Private Sector
(In percent, year-on-year growth)



Sources: AMCM, and IMF staff calculations.

... with household mortgages still accounting for the largest share of domestic lending.

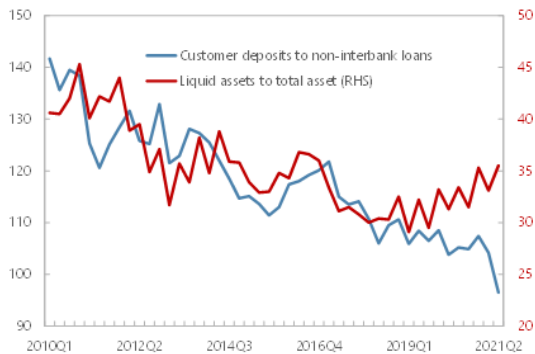
Domestic Lending by Sector
(In percent of total, 2020Q4)



Source: AMCM.

Liquidity ratios have diverged.

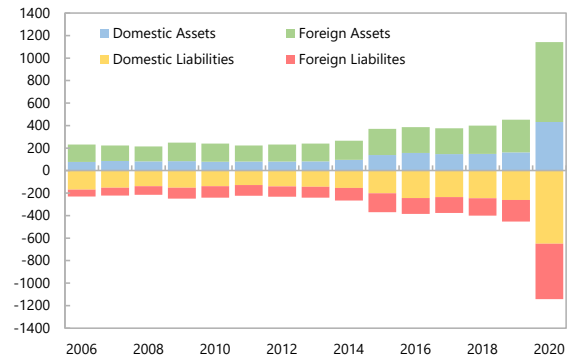
Bank Liquidity
(In percent)



Sources: IMF Financial Soundness Indicators, and IMF staff calculations.

Continued monitoring of the large external liabilities and external assets is important.

Bank Balance Sheets
(In percent of GDP)



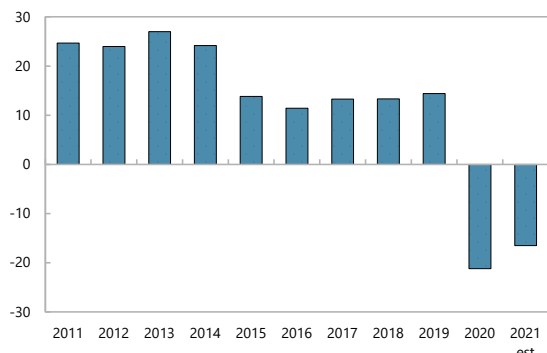
Sources: IMF staff calculations.

Figure 8. Macao SAR: Fiscal Developments

The fiscal balance has turned into a deficit in 2020–21...

General Government Balance

(In percent of GDP)

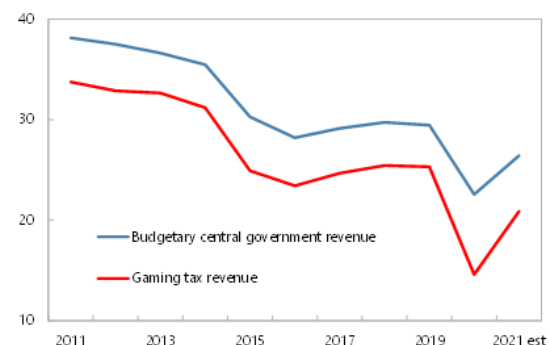


Sources: Macao Financial Services Bureau, and IMF Government Statistics.

...mostly due to plunged gaming tax revenue...

Revenue and Gaming Tax Revenue

(Budgetary central government, in percent of GDP)

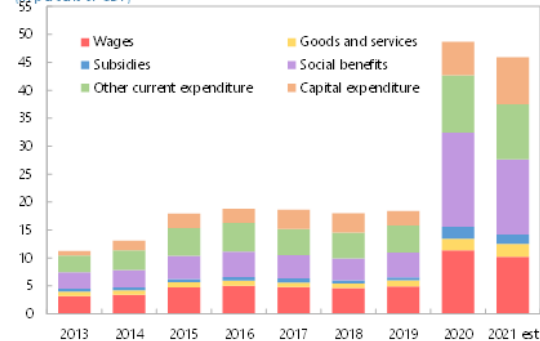


Sources: Macao Financial Services Bureau, and IMF Government Statistics.

...while expenditure has increased...

General Government Expenditure

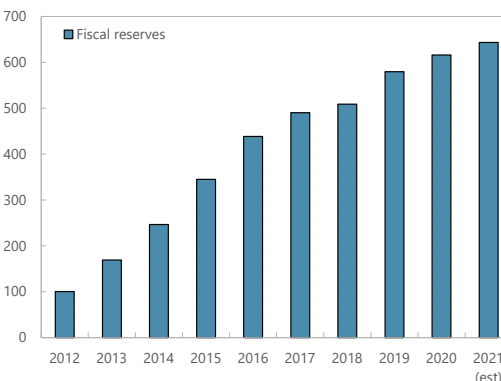
(In percent of GDP)



Sources: Macao SAR Financial Services Bureau, IMF Government Statistics, and IMF staff calculations.

..., which stalled Macao SAR's fast pace of pre-pandemic fiscal reserve accumulation.

Fiscal reserves

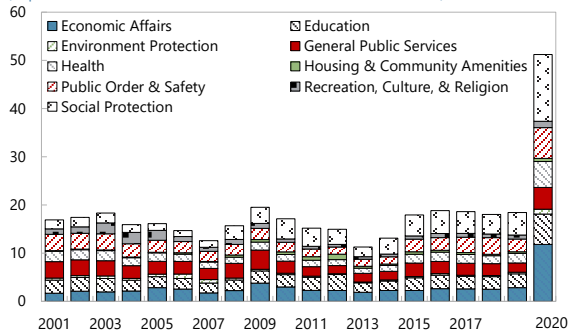


Sources: Financial Services Bureau, and IMF staff calculations.

While non-targeted transfers within "social protection" spending have increased over time...

General Government Expenditure by Function

(In percent of GDP, Classification of the Functions of Government)

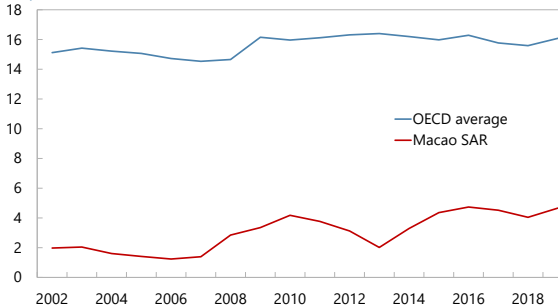


Sources: IMF Government Finance Statistics.

...social spending remains relatively low when compared with the OECD average.

General Government Spending on Social Protection

(In percent of GDP)



Source: Government Finance Statistics

Table 1. Macao SAR: Selected Economic Indicators, 2017-27

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
	Est					Projections						
	(Annual percentage change, unless otherwise specified)											
National accounts												
Real GDP	10.0	6.5	-2.5	-54.0	18.0	15.5	23.3	18.6	9.8	5.1	3.5	
Total domestic demand	-0.2	0.5	-4.1	-10.1	3.0	5.8	3.3	3.9	4.0	4.0	4.9	
Consumption	2.1	4.1	3.4	-7.2	4.6	6.0	2.5	2.5	2.8	2.9	3.2	
Investment	-4.1	-6.1	-18.4	-17.2	-1.4	5.3	5.7	8.0	7.1	7.1	9.2	
Net exports 1/	10.2	6.3	-0.5	-49.0	23.1	10.0	20.7	16.1	7.6	2.9	0.9	
Exports	16.8	9.8	-2.2	-65.1	69.9	16.1	32.2	20.7	11.1	5.8	3.2	
Imports	7.8	4.9	-4.1	-14.7	47.2	6.1	12.5	6.5	6.1	5.3	4.3	
Gross fixed capital formation (In percent of GDP)	19.3	16.4	13.8	25.8	21.4	21.6	18.5	16.7	16.2	16.5	17.3	
National savings (In percent of GDP)	66.0	66.8	47.9	28.9	37.0	25.0	33.2	39.0	42.5	43.5	59.4	
Prices and employment												
Headline inflation (Average)	1.2	3.0	2.8	0.8	0.0	2.8	2.7	2.6	2.6	2.5	2.5	
Terms of Trade	0.2	-0.2	0.1	0.1	-0.4	-1.5	-0.2	-0.1	0.1	0.2	0.3	
Housing prices	16.8	7.5	-0.8	-2.3	-1.1	...	...	...	...	...	...
Median monthly employment earnings	0.0	6.7	6.3	-11.8	5.3	...	...	...	...	...	...
Unemployment rate (Annual average)	2.0	1.8	1.7	2.5	2.9	2.6	1.8	1.8	1.8	1.7	1.7	
(In percent of GDP, unless otherwise specified)												
Fiscal accounts												
General government balance	13.3	13.3	14.4	-21.2	-16.6	-10.2	5.0	11.7	12.2	12.1	13.9	
Budgetary Central Government Balance	10.6	12.4	12.0	-21.2	-16.5	-9.9	4.4	9.7	10.2	10.1	10.9	
Revenue	29.1	29.7	29.4	22.6	26.4	23.5	29.6	30.4	30.1	29.7	30.4	
Expenditure	18.5	17.4	17.4	43.7	42.9	33.4	25.1	20.8	19.9	19.7	19.5	
Extra-budgetary funds balance	1.0	0.1	0.6	-2.8	-0.5	-0.2	-0.4	0.6	0.6	0.6	1.6	
Social security funds balance	1.7	0.8	1.7	2.9	0.4	0.0	0.9	1.4	1.4	1.4	1.4	
Total public debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Fiscal Reserve 2/	121.0	114.0	130.0	301.4	268.7	194.3	159.9	143.9	140.7	143.5	149.8	
Balance of payments												
Current account	30.8	33.0	33.8	15.2	13.8	3.5	14.9	22.4	26.3	27.1	26.2	
Goods	-21.1	-19.6	-19.1	-30.1	-36.6	-34.5	-30.1	-26.1	-24.7	-24.3	-24.1	
Services	67.3	69.0	69.8	32.4	49.0	53.2	61.5	65.8	67.5	67.3	66.3	
Income	-15.4	-16.4	-16.8	12.9	1.4	-15.2	-16.5	-17.3	-16.4	-16.0	-15.9	
Financial account	27.5	23.6	18.3	18.6	6.0	8.1	12.7	20.6	22.9	25.0	26.0	
FDI	1.5	-3.2	-9.4	34.5	14.1	5.8	0.8	4.1	4.5	5.2	6.1	
Portfolio investment	20.6	-8.0	28.3	23.7	23.9	23.4	22.7	22.0	21.4	21.0	20.5	
Financial derivatives	-0.6	-0.6	-1.1	-1.4	-1.4	-1.4	-1.3	-1.3	-1.3	-1.3	-1.3	
Other investment	6.1	35.4	0.5	-38.2	-30.7	-19.8	-9.5	-4.2	-1.8	0.1	0.8	
Errors and omissions	-2.7	-9.9	-12.7	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Reserve Asset	0.4	-0.5	2.7	10.4	7.8	-4.6	2.2	1.8	3.5	2.1	0.2	
Foreign exchange reserves (In billions of U.S. dollars) 2/	20.2	20.3	22.2	25.1	26.7	...	...	...	...	...	...
Gross external debt	174.0	185.8	223.4	557.4	569.4	507.3	418.6	320.0	305.0	290.0	275.0	
(Annual percentage change)												
Financial sector												
Loans	14.2	12.4	6.5	9.4	...	...	...	...	...	...	...
Resident	8.4	10.2	2.6	3.1	...	...	...	...	...	...	...
Mortgages	6.9	12.6	9.9	4.5	...	...	...	...	...	...	...
Others	9.2	9.1	-1.0	2.4	...	...	...	...	...	...	...
Nonresident	21.0	14.7	10.5	15.2	...	...	...	...	...	...	...
Mortgages	-1.6	-3.7	0.1	-1.8	...	...	...	...	...	...	...
Others	21.5	15.1	10.6	15.4	...	...	...	...	...	...	...
Domestic credit to residents (In percent of GDP)	113.2	113.2	116.3	261.4	...	...	...	...	...	...	...
Domestic credit to non-residents (In percent of GDP)	108.1	112.5	124.5	312.7	...	...	...	...	...	...	...
Household domestic credit to residents (In percent of GDP)	60.2	61.8	69.1	155.3	...	...	...	...	...	...	...
Household domestic credit to non-residents (In percent of GDP)	4.6	4.9	5.2	11.1	...	...	...	...	...	...	...
Interest rates												
Discount window base rate (level, %, eop)	1.8	2.8	2.0	0.5	...	...	...	...	...	...	...
Saving deposit rate (level, %, average)	0.0	0.0	0.1	0.0	...	...	...	...	...	...	...
MAIBOR 3-month (level, %, eop)	1.3	2.4	2.4	0.4	...	...	...	...	...	...	...
Tourism												
Visitor arrivals	5.4	9.8	10.1	-85.0	...	...	...	...	...	...	...
Gaming revenue	19.0	14.0	-3.5	-79.2	...	...	...	...	...	...	...
Exchange rate												
MOP per USD, period average	0.4	0.6	0.0	-1.0	...	...	...	...	...	...	...
Nominal effective exchange rate (average, +=appreciation)	-0.1	-2.5	3.0	-0.2	...	...	...	...	...	...	...
Real effective exchange rate (average, +=appreciation)	-0.9	-0.9	0.1	1.1	...	...	...	...	...	...	...
Memorandum items:												
Nominal GDP (In millions of U.S. dollars)	50,440	55,281	55,205	25,587	29,905	35,246	44,856	54,847	61,807	66,446	70,373	
Per capita GDP (In thousands of U.S. dollars)	78	84	81	38	44	51	63	76	85	90	95	

Sources: CEIC; Haver Analytics; IMF, International Financial Statistics; national authorities; and IMF staff estimates.

1/ Contribution to annual growth in percentage points.

2/ Fiscal reserve fund was established on January 1, 2012 with a transfer from foreign exchange reserves.

Table 2. Macao SAR: Indicators of External Vulnerability, 2011-21

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Monetary and financial indicators											
Broad money (M2, annual percentage change)	22.6	25.8	17.7	10.4	-3.0	12.6	11.1	10.1	5.5	0.7	-0.7
Loans (annual percentage change)	31.2	26.2	31.4	29.0	10.3	3.1	14.2	12.4	6.5	9.4	11.1
Resident	28.5	18.4	29.6	31.8	14.8	8.6	8.4	10.2	2.6	3.1	5.5
Nonresident	34.3	34.6	33.2	26.4	6.0	-2.7	21.0	14.7	10.5	15.2	15.8
Private domestic credit excl financial investment (MOP bn)	167.6	198.5	257.2	339.1	389.1	422.7	458.4	505.1	518.1	534.2	563.5
(Percent change)	28.5	18.4	29.6	31.8	14.8	8.6	8.4	10.2	2.6	3.1	5.5
Personal loans for house purchases (MOP bn)	59.4	76.7	96.6	115.8	127.5	138.6	148.2	166.8	183.3	191.5	200.0
(Percent change)	25.3	29.2	25.9	19.9	10.1	8.7	6.9	12.6	9.9	4.5	4.5
Balance of payments indicators 1/											
Exports (annual percentage change, U.S. dollars)	34.8	17.8	19.2	0.6	-24.8	-2.3	17.5	12.4	-0.1	-65.3	67.1
Imports (annual percentage change, U.S. dollars)	30.6	18.6	11.5	14.2	-0.5	-11.1	8.0	5.7	-3.9	-13.5	49.1
Current account balance (percent GDP)	40.4	38.8	39.3	32.7	23.3	26.5	30.8	33.0	33.8	15.2	13.8
Capital and financial account balance (percent GDP)	-2.8	-34.6	-35.4	-21.2	-8.1	-26.5	-27.6	-23.6	-18.4	-18.6	-6.0
Of which: gross foreign direct investment inflows	4.8	8.3	7.3	4.4	1.1	4.1	3.4	2.8	11.8	-27.8	-7.2
Reserve indicators 1/											
Foreign exchange reserves (billions of US dollars)	34.0	16.6	16.1	16.4	18.9	19.5	20.2	20.3	22.2	25.1	26.7
Foreign exchange reserves to imports of GNFS (months)	34.0	14.0	12.2	10.9	12.6	14.6	14.0	13.3	15.2	19.8	14.1
Foreign exchange reserves to broad money (M2, percent)	352.4	145.8	121.2	105.5	106.7	95.5	88.8	82.4	84.6	85.3	88.0
Foreign exchange reserves (percent of GDP)	92.4	38.4	31.3	30.0	41.9	43.2	40.0	36.7	40.2	98.3	89.2
Banking sector											
Gross foreign assets of banking sector (percent GDP) 2/	143.0	206.0	258.0	255.0	234.0	228.1	230.2	252.2	290.2	676.1	737.0
Banking system profits (MOP bn)	5.1	6.3	8.5	11.0	12.8	14.3	14.9	16.1	16.9	17.0	16.4
(annual percent change)	30.1	24.4	34.7	29.9	16.4	11.5	4.3	7.9	5.3	0.2	-3.2
Nonperforming loans (MOP bn)											
To residents	0.8	0.6	0.4	0.7	0.9	1.5	1.5	1.5	2.1	3.5	3.9
To nonresidents	0.4	0.2	0.1	0.2	0.1	0.1	0.6	0.8	0.6	1.1	5.6
Financial Sector											
Policy rate: discount window base rate (eop)	0.5	0.5	0.5	0.5	0.8	1.0	1.8	2.8	2.0	0.5	0.5
Saving deposit rate (average)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Prime lending rate (average)	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.4	5.3	5.3
MAIBOR 3-month (eop)	0.4	0.4	0.4	0.4	0.4	1.0	1.3	2.4	2.4	0.4	0.3
Monetary bill yield (weighted average)	0.3	0.4	0.5	0.4	0.4	0.6	0.8	1.1	1.7	1.1	0.2
Residential property market											
Average transaction price: residential (MOP/sq. m.)	41,433	57,362	81,811	99,795	86,826	86,342	100,822	108,427	107,522	105,064	103,859
(Percent change)	...	38.4	42.6	22.0	-13.0	-0.6	16.8	7.5	-0.8	-2.3	-1.1
Tourism											
Visitor arrivals (person mn)	28.0	28.1	29.3	31.5	30.7	31.0	32.6	35.8	39.4	5.9	7.7
(Percent change)	12.2	0.3	4.4	7.5	-2.6	0.8	5.4	9.8	10.1	-85.0	30.7
Gaming revenue (MOP bn)	269.1	305.2	361.9	352.7	231.8	224.1	266.6	303.9	293.3	61.0	87.6
(Percent change)	41.9	13.4	18.6	-2.5	-34.3	-3.3	19.0	14.0	-3.5	-79.2	43.4
Memorandum items:											
Nominal GDP (USD mn)	36,844	43,190	51,536	54,903	45,048	45,071	50,441	55,285	55,205	25,586	29,905

Sources: CEIC; Haver Analytics; IMF, International Financial Statistics; national authorities; and IMF staff estimates and projections.

1/ BPM6 methodology.

2/ Excluding AMCM.

Table 3a. Macao SAR: General Government Fiscal Data, 2017-27
(In millions of MOP)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
					Est			Projections			
	(In millions of MOP)										
Budgetary Central Government											
Revenue	117,908	132,671	131,198	46,097	63,307	66,181	104,550	130,215	144,208	152,562	164,654
Taxes	114,266	128,388	128,549	43,464	60,855	63,040	100,925	125,828	139,293	147,302	159,098
Personal Income	2,365	2,606	2,760	2,569	2,200	2,290	2,190	2,651	2,970	3,179	3,358
Corporate Income	5,610	5,229	6,820	6,422	4,009	5,647	5,226	6,325	7,086	7,585	8,011
Property	1,055	1,081	1,059	807	1,134	1,261	1,202	856	959	1,026	6,504
Goods and Services	104,531	118,700	117,308	33,183	53,032	53,397	91,597	115,138	127,316	134,481	140,138
Of which: Gaming	99,845	113,512	112,710	29,808	50,005	49,758	83,144	109,186	122,326	130,936	138,290
Other	703	772	603	482	480	444	710	859	962	1,030	1,088
Other Revenue	3,642	4,283	2,649	2,633	2,452	3,141	3,625	4,387	4,915	5,261	5,556
Expenditures	75,006	77,449	77,662	89,366	102,746	94,219	88,915	88,793	95,213	100,939	105,579
Wages	11,403	12,040	12,687	13,294	14,117	14,237	13,092	14,989	15,834	16,435	16,817
Goods and Services	3,155	3,589	4,877	4,235	5,415	5,609	5,530	6,265	6,060	5,974	5,767
Subsidies	1,830	1,892	1,841	4,048	3,413	3,502	2,924	2,683	2,526	2,704	2,856
Intra Government Transfers	27,261	26,581	27,205	27,806	29,691	28,357	29,753	26,129	29,274	31,335	33,095
To EBFs	21,743	20,300	22,217	23,353	25,594	25,684	24,404	21,339	23,907	25,589	27,027
To SSF	5,518	6,281	4,988	4,453	4,097	2,673	5,350	4,791	5,367	5,745	6,068
Social Benefits	11,405	11,729	12,970	20,712	23,080	15,414	10,607	12,458	14,005	15,042	15,941
Other Current	6,565	6,904	7,339	7,816	7,907	8,236	7,929	7,885	7,875	8,429	8,902
Capital Expenditure	13,387	14,714	10,742	11,457	19,124	18,863	19,080	18,385	19,639	21,021	22,201
Budgetary Central Government Balance	42,902	55,222	53,536	(43,270)	(39,439)	(28,038)	15,635	41,422	48,996	51,623	59,075
Extra-Budgetary Funds											
Revenue	28,059	25,992	30,083	27,732	30,244	29,900	30,576	28,809	32,277	34,548	41,909
Taxes and other Receipts	5,922	5,308	7,215	3,460	4,649	4,216	6,173	7,471	8,370	8,959	14,882
Transfers from Central Government	22,137	20,684	22,869	24,272	25,594	25,684	24,404	21,339	23,907	25,589	27,027
Expenditure	24,030	25,391	27,189	33,503	31,391	30,590	31,849	26,114	29,305	31,419	33,238
Wages	8,048	8,490	9,111	9,779	10,297	10,381	8,812	8,751	9,804	10,494	11,083
Subsidies	1,206	670	449	321	659	315	974	431	483	517	546
Grants	433	416	660	929	705	384	580	634	710	760	803
Social Benefits	1,578	1,674	2,071	8,600	3,223	3,386	3,204	1,989	2,276	2,488	2,681
Other Current	12,155	13,340	14,002	13,055	15,539	15,247	17,042	13,448	15,066	16,127	17,033
Capital Expenditure	610	802	897	818	968	877	1,237	862	965	1,033	1,091
EBF Balance	4,029	601	2,894	(5,771)	(1,147)	(690)	(1,273)	2,695	2,972	3,130	8,671
Social Security Fund											
Revenue	10,772	8,117	12,802	11,407	7,283	6,517	10,286	11,039	12,367	13,238	19,401
Social Contributions	383	390	391	390	402	402	595	720	806	863	912
Transfers from Central Government	5,518	6,281	4,988	4,453	4,097	2,673	5,350	4,791	5,367	5,745	6,068
Other Revenue	4,871	1,446	7,422	6,564	2,784	3,441	4,342	5,528	6,194	6,629	12,422
Expenditure	4,026	4,571	5,040	5,416	6,319	6,451	6,957	5,049	5,657	6,055	11,815
Wages	119	133	137	141	157	156	233	131	147	157	166
Social Benefits	3,772	4,104	4,666	5,102	5,917	6,061	6,364	4,482	5,021	5,374	5,676
Other Current	135	334	237	173	244	234	361	436	489	523	553
Capital Expenditure	-	-	-	-	-	-	-	-	-	-	5,420
SSF Balance	6,746	3,546	7,762	5,991	964	66	3,328	5,990	6,710	7,183	7,586
General Government Balance											
Revenue	129,083	139,815	146,227	56,511	71,142	74,241	115,659	143,934	159,578	169,014	192,869
Expenditure	75,406	80,446	82,035	99,860	110,764	102,902	97,968	93,827	100,901	107,079	117,537
Memorandum											
Fiscal Reserve 1/	490,038	508,803	579,403	616,123	643,168	547,839	565,530	615,636	674,314	736,249	811,581
Public Sector Domestic Deposits	311,852	389,358	413,271	391,839	372,649	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Non-Gaming Balance	(46,168)	(54,143)	(48,519)	(73,158)	(89,628)	(78,420)	(65,453)	(59,079)	(63,648)	(69,001)	(62,958)

1/ Fiscal Reserve was established on January 1, 2012 with a transfer from foreign exchange reserves.

Sources: Financial Services Bureau and IMF staff estimates.

Table 3b. Macao SAR: General Government Fiscal Data, 2016-27
(In percent of GDP)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
						Est	Projections						
	(In percent of GDP)												
Budgetary Central Government													
Revenue	28.2	29.1	29.7	29.4	22.6	26.4	23.5	29.6	30.4	30.1	29.7	30.4	
Taxes	27.0	28.2	28.8	28.9	21.3	25.4	22.4	28.5	29.4	29.1	28.7	29.4	
Personal Income	0.6	0.6	0.6	0.6	1.3	0.9	0.8	0.6	0.6	0.6	0.6	0.6	
Corporate Income	1.5	1.4	1.2	1.5	3.1	1.7	2.0	1.5	1.5	1.5	1.5	1.5	
Property	0.3	0.3	0.2	0.2	0.4	0.5	0.4	0.3	0.2	0.2	0.2	0.2	
Goods and Services	24.5	25.8	26.6	26.3	16.2	22.2	18.9	25.9	26.9	26.6	26.2	25.9	
Of which: Gaming	23.4	24.7	25.4	25.3	14.6	20.9	17.6	23.5	25.5	25.5	25.5	25.5	
Other	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Other Revenue	1.1	0.9	1.0	0.6	1.3	1.0	1.1	1.0	1.0	1.0	1.0	1.0	
Expenditures	21.8	18.5	17.4	17.4	43.7	42.9	33.4	25.1	20.8	19.9	19.7	19.5	
Wages	2.9	2.8	2.7	2.8	6.5	5.9	5.0	3.7	3.5	3.3	3.2	3.1	
Goods and Services	0.9	0.8	0.8	1.1	2.1	2.3	2.0	1.6	1.5	1.3	1.2	1.1	
Subsidies	0.4	0.5	0.4	0.4	2.0	1.4	1.2	0.8	0.6	0.5	0.5	0.5	
Intra Government Transfers	10.3	6.7	6.0	6.1	13.6	12.4	10.1	8.4	6.1	6.1	6.1	6.1	
To EBFs	5.3	5.4	4.5	5.0	11.4	10.7	9.1	6.9	5.0	5.0	5.0	5.0	
To SSF	5.0	1.4	1.4	1.1	2.2	1.7	0.9	1.5	1.1	1.1	1.1	1.1	
Social Benefits	3.2	2.8	2.6	2.9	10.1	9.6	5.5	3.0	2.9	2.9	2.9	2.9	
Other Current	1.7	1.6	1.5	1.6	3.8	3.3	2.9	2.2	1.8	1.6	1.6	1.6	
Capital Expenditure	2.3	3.3	3.3	2.4	5.6	8.0	6.7	5.4	4.3	4.1	4.1	4.1	
Budgetary Central Government Balance	6.3	10.6	12.4	12.0	-21.2	-16.5	-9.9	4.4	9.7	10.2	10.1	10.9	
Extra-Budgetary Funds													
Revenue	6.8	6.9	5.8	6.8	13.6	12.6	10.6	8.6	6.7	6.7	6.7	7.7	
Taxes and other Receipts	1.4	1.5	1.2	1.6	1.7	1.9	1.5	1.7	1.7	1.7	1.7	2.7	
Transfers from Central Government	5.4	5.5	4.6	5.1	11.9	10.7	9.1	6.9	5.0	5.0	5.0	5.0	
Expenditure	6.3	5.9	5.7	6.1	16.4	13.1	10.8	9.0	6.1	6.1	6.1	6.1	
Wages	2.1	2.0	1.9	2.0	4.8	4.3	3.7	2.5	2.0	2.0	2.0	2.0	
Subsidies	0.2	0.3	0.2	0.1	0.2	0.3	0.1	0.3	0.1	0.1	0.1	0.1	
Grants	0.1	0.1	0.1	0.1	0.5	0.3	0.1	0.2	0.1	0.1	0.1	0.1	
Social Benefits	0.4	0.4	0.4	0.5	4.2	1.3	1.2	0.9	0.5	0.5	0.5	0.5	
Other Current	3.4	3.0	3.0	3.1	6.4	6.5	5.4	4.8	3.1	3.1	3.1	3.1	
Capital Expenditure	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.4	0.2	0.2	0.2	0.2	
EBF Balance	0.5	1.0	0.1	0.6	-2.8	-0.5	-0.2	-0.4	0.6	0.6	0.6	1.6	
Social Security Fund													
Revenue	5.7	2.7	1.8	2.9	5.6	3.0	2.3	2.9	2.6	2.6	2.6	3.6	
Social Contributions	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	
Transfers from Central Government	5.0	1.4	1.4	1.1	2.2	1.7	0.9	1.5	1.1	1.1	1.1	1.1	
Other Revenue	0.6	1.2	0.3	1.7	3.2	1.2	1.2	1.2	1.3	1.3	1.3	2.3	
Expenditure	1.1	1.0	1.0	1.1	2.6	2.6	2.3	2.0	1.2	1.2	1.2	2.2	
Wages	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	
Social Benefits	1.0	0.9	0.9	1.0	2.5	2.5	2.1	1.8	1.0	1.0	1.0	1.0	
Other Current	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Capital Expenditure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	
SSF Balance	4.6	1.7	0.8	1.7	2.9	0.4	0.0	0.9	1.4	1.4	1.4	1.4	
General Government Balance													
Revenue	11.4	13.3	13.3	14.4	-21.2	-16.6	-10.2	5.0	11.7	12.2	12.1	13.9	
Expenditure	18.8	18.6	18.0	18.4	48.9	46.3	36.5	27.7	21.9	21.0	20.9	21.7	
Memorandum													
Fiscal Reserve 1/	121.7	121.0	114.0	130.0	301.4	268.7	194.3	159.9	143.9	140.7	143.5	149.7	
Public Sector Domestic Deposits	79.4	77.0	87.2	92.8	191.7	155.7	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
Cyclically Adjusted Non-Gaming Balance 2/	-23.1	-24.0	-27.1	-23.7	-32.6	-40.4	-32.9	-23.6	-17.0	-17.2	-17.4	-13.7	
Social Spending 3/	9.9	9.3	8.6	9.1	21.5	18.1	13.5	10.4	9.1	9.1	9.1	9.1	

1/ Fiscal Reserve was established on January 1, 2012 with a transfer from foreign exchange reserves.

2/ In percent of potential non-gaming GDP

3/ Includes Social Protection, Health, Housing, and Education from

Sources: Financial Services Bureau; and IMF staff estimates.

Table 4. Macao SAR: Balance of Payments, 2017-27

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
	Est					Projections						
	(In millions of US dollars)											
Current account, net	15,511	18,238	18,681	3,879	4,127	1,244	6,676	12,273	16,272	18,006	18,459	
Trade balance of goods and services, net	23,268	27,327	27,963	589	3,714	6,586	14,085	21,773	26,399	28,609	29,665	
Goods balance, net	-10,665	-10,834	-10,571	-7,697	-10,942	-12,157	-13,518	-14,301	-15,294	-16,118	-16,985	
Credit (exports)	1,746	1,969	1,855	4,250	8,010	9,073	9,833	10,526	11,173	11,808	12,473	
Debit (imports)	12,412	12,803	12,426	11,946	18,952	21,230	23,351	24,828	26,467	27,925	29,458	
Services balance, net	33,933	38,161	38,534	8,285	14,656	18,743	27,603	36,075	41,693	44,727	46,650	
Credit (exports)	38,830	43,657	43,701	11,557	18,486	23,560	34,145	43,441	49,747	53,405	55,610	
Debit (imports)	4,897	5,496	5,167	3,271	3,830	4,818	6,543	7,366	8,054	8,678	8,959	
Primary Income, net	-5,546	-6,378	-6,240	4,775	2,183	-3,215	-4,673	-6,132	-6,324	-6,517	-6,881	
Secondary Income, net	-2,211	-2,710	-3,042	-1,486	-1,771	-2,127	-2,735	-3,368	-3,803	-4,086	-4,326	
Capital account, net	-45	-16	-33	0	0	0	0	0	0	0	0	
Financial account, net	13,891	13,036	10,130	4,756	1,794	2,849	5,683	11,309	14,128	16,596	18,318	
Direct investment, net	747	-1,773	-5,182	8,832	4,225	2,036	364	2,267	2,801	3,485	4,268	
Liabilities	1,701	1,534	6,508	-7,104	-2,151	1,076	4,303	4,733	4,970	5,218	5,479	
Assets	2,448	-239	1,327	1,728	2,074	3,111	4,667	7,000	7,770	8,703	9,747	
Portfolio investment, net	10,385	-4,443	15,628	6,056	7,146	8,255	10,179	12,072	13,255	13,931	14,419	
Liabilities	3,946	11,495	9,031	3,779	4,459	5,151	6,351	7,532	8,271	8,692	8,997	
Assets	14,331	7,052	24,660	9,835	11,604	13,406	16,530	19,605	21,526	22,623	23,415	
Financial derivatives, net	-313	-310	-594	-347	-407	-479	-601	-727	-814	-871	-920	
Liabilities	...	...	...	...	...	...	...	...	...	...	...
Assets	-313	-310	-594	-347	-407	-479	-601	-727	-814	-871	-920	
Other investment, net	3,072	19,562	277	-9,785	-9,170	-6,963	-4,260	-2,304	-1,114	52	551	
Liabilities	3,939	4,974	9,649	12,238	12,850	12,850	12,207	11,841	11,604	11,488	11,373	
Assets	7,011	24,537	9,926	2,453	3,679	5,887	7,947	9,537	10,491	11,540	11,924	
Errors and omissions, net	-1,382	-5,448	-7,015	3,548	0	0	0	0	0	0	0	
Reserve assets	193	-262	1,503	2,670	2,332	-1,605	993	964	2,143	1,410	141	
	(In percent of GDP)											
Current account, net	30.8	33.0	33.8	15.2	13.8	3.5	14.9	22.4	26.3	27.1	26.2	
Trade balance of goods and services, net	46.1	49.4	50.7	2.3	12.4	18.7	31.4	39.7	42.7	43.1	42.2	
Goods balance, net	-21.1	-19.6	-19.1	-30.1	-36.6	-34.5	-30.1	-26.1	-24.7	-24.3	-24.1	
Credit (exports)	3.5	3.6	3.4	16.6	26.8	25.7	21.9	19.2	18.1	17.8	17.7	
Debit (imports)	24.6	23.2	22.5	46.7	63.4	60.2	52.1	45.3	42.8	42.0	41.9	
Services balance, net	67.3	69.0	69.8	32.4	49.0	53.2	61.5	65.8	67.5	67.3	66.3	
Credit (exports)	77.0	79.0	79.2	45.2	61.8	66.8	76.1	79.2	80.5	80.4	79.0	
Debit (imports)	9.7	9.9	9.4	12.8	12.8	13.7	14.6	13.4	13.0	13.1	12.7	
Primary Income, net	-11.0	-11.5	-11.3	18.7	7.3	-9.1	-10.4	-11.2	-10.2	-9.8	-9.8	
Secondary Income, net	-4.4	-4.9	-5.5	-5.8	-5.9	-6.0	-6.1	-6.1	-6.2	-6.1	-6.1	
Capital account, net	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Financial account, net	27.5	23.6	18.3	18.6	6.0	8.1	12.7	20.6	22.9	25.0	26.0	
Direct investment, net	1.5	-3.2	-9.4	34.5	14.1	5.8	0.8	4.1	4.5	5.2	6.1	
Liabilities	3.4	2.8	11.8	-27.8	-7.2	3.1	9.6	8.6	8.0	7.9	7.8	
Assets	4.9	-0.4	2.4	6.8	6.9	8.8	10.4	12.8	12.6	13.1	13.9	
Portfolio investment, net	20.6	-8.0	28.3	23.7	23.9	23.4	22.7	22.0	21.4	21.0	20.5	
Liabilities	7.8	20.8	16.4	14.8	14.9	14.6	14.2	13.7	13.4	13.1	12.8	
Assets	28.4	12.8	44.7	38.4	38.8	38.0	36.9	35.7	34.8	34.0	33.3	
Financial derivatives, net	-0.6	-0.6	-1.1	-1.4	-1.4	-1.4	-1.3	-1.3	-1.3	-1.3	-1.3	
Liabilities	...	...	...	...	...	...	...	...	...	...	...
Assets	-0.6	-0.6	-1.1	-1.4	-1.4	-1.4	-1.3	-1.3	-1.3	-1.3	-1.3	
Other investment, net	6.1	35.4	0.5	-38.2	-30.7	-19.8	-9.5	-4.2	-1.8	0.1	0.8	
Liabilities	7.8	9.0	17.5	47.8	43.0	36.5	27.2	21.6	18.8	17.3	16.2	
Assets	13.9	44.4	18.0	9.6	12.3	16.7	17.7	17.4	17.0	17.4	16.9	
Errors and omissions, net	-2.7	-9.9	-12.7	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Reserve assets	0.4	-0.5	2.7	10.4	7.8	-4.6	2.2	1.8	3.5	2.1	0.2	
Memorandum items:												
Total External Debt (in millions of U.S. dollars)	87,779	102,727	123,323	142,605	170,291	178,806	187,746	175,511	188,511	192,693	193,527	
Banks	70,620	85,230	106,122	119,794	...	...	...	...	...	...	...
Non-bank entities	17,159	17,497	17,200	22,811	...	...	...	...	...	...	...
Foreign exchange reserves (in millions of U.S. dollars)	20,170	20,281	22,215	25,145	26,665	...	...	...	...	...	...
Nominal GDP (in millions of U.S. dollars)	50,441	55,285	55,205	25,586	29,905	35,246	44,856	54,847	61,807	66,446	70,373	

Sources: CEIC; Haver Analytics; IMF, International Financial Statistics; national authorities; and IMF staff estimates and projections.

1/ BPM6 methodology.

Table 5. Macao SAR: Financial Soundness Indicators, 2014-21

	2014	2015	2016	2017	2018	2019	2020	2021 1/
	(In percent)							
Capital adequacy								
Regulatory capital to risk-weighted assets * 1/	14.2	15.1	16.1	15.7	14.8	14.2	14.5	14.9
Regulatory Tier I capital to risk weighted assets * 1/	9.9	11.6	11.7	11.4	10.5	10.4	10.4	10.7
Capital to assets *	2.2	2.9	3.1	3.3	3.1	3.1	3.1	3.0
Asset composition and quality								
Sectoral distribution of domestic credit to private sector (% of gross loans)	49.2	51.1	53.9	51.2	50.1	48.3	45.5	42.8
Real estate	16.8	16.8	17.7	16.5	16.6	17.1	16.3	15.2
Construction	5.3	6.1	6.1	6.1	4.5	5.1	5.5	5.6
Manufacturing	1.3	1.3	1.5	1.5	1.0	0.7	0.5	0.5
Commercial	4.6	3.7	3.7	3.5	3.1	2.8	2.4	2.8
Public utilities	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2
Restaurant, hotel and related services	2.8	4.1	4.3	4.0	5.0	3.5	3.0	2.4
Financial businesses	0.7	0.3	0.2	0.3	0.1	0.1	0.1	0.1
Other industries	17.5	18.8	20.3	19.2	19.6	18.7	17.5	16.0
Total claims on government to gross loans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Asset quality								
Nonperforming loans (NPL) to gross loans *	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3
NPL net of provisions to capital * 2/	0.7	0.2	0.9	1.3	1.1	1.8	2.6	2.3
Earnings and profitability								
Return on assets *	1.0	1.0	1.1	1.0	1.0	0.9	0.8	0.8
Return on equity *	25.2	24.9	21.4	19.9	19.1	17.8	16.1	16.9
Interest margin to gross income *	76.1	74.6	71.8	73.8	74.9	73.1	71.6	71.8
Trading income to total income **	1.4	2.6	4.4	2.6	2.6	4.5	4.6	5.5
Noninterest expenses to gross income *	34.5	35.3	34.0	34.4	34.5	35.8	33.5	31.4
Personnel expenses to noninterest expenses **	51.3	46.2	49.7	48.3	48.2	47.6	50.4	49.1
Spread between reference loan and deposit rates, period average ** (basis points)								
Liquidity								
Liquid assets to total assets *	35.8	34.8	36.0	30.8	32.5	33.2	35.3	34.5
Liquid assets to short-term liabilities *	60.1	60.5	60.6	53.0	62.1	57.7	65.6	65.6
Foreign currency-denominated loans to total loans **	83.7	82.4	79.1	81.3	80.2	76.7	74.4	74.9
Foreign currency-denominated liabilities to total liabilities **	84.2	83.5	82.0	82.8	85.3	86.4	86.5	87.5
Sensitivity to market risk								
Net open position in equities to capital								
Net open position in foreign exchange to capital *	163.9	140.3	146.2	123.2	94.4	71.1	65.9	56.3
Real estate markets								
Residential real estate loans to total gross loans **	21.6	22.0	22.0	20.7	20.6	20.0	17.9	16.1
Commercial real estate loans to total gross loans **	17.3	20.9	20.7	19.7	18.9	15.5	12.9	10.7

Sources: AMCM and IMF FSI database.

* Core indicators ** Encouraged indicators

1/ 2021 is showing the latest data as of Q3

2/ Locally incorporated banks only.

Appendix I. 2021 External Sector Assessment¹

Overall Assessment: *The external position of Macao SAR in 2021 was substantially stronger than the level implied by fundamentals and desirable policies. The current account surplus to GDP slightly fell in 2021 relative to 2020 and remained below half of the surplus observed in 2019. This outcome is driven by the collapse in tourism receipts, which more than offsets a surge in primary income balance due to a plunge in dividend payments and reinvested earnings for the gaming sector.*

Potential Policy Responses: *Given ample fiscal space, staff recommends more expansionary fiscal stance focused on healthcare and education spending and scaling up public investments to strengthen the recovery, adopt to the climate change, and facilitate the economy's diversification. Efforts to enhance social safety nets should continue, which would reduce precautionary saving and support consumption.*

Foreign Assets and Liabilities: Position and Trajectory

Background. Official international investment position data are not available. As an alternative, staff estimate Macao SAR's net foreign assets by calculating the cumulative sum of financial account flows starting in 2002 (the estimate is imperfect as it excludes valuation changes). Consistent with measured Macao SAR's large current account surplus since 2002, this approach suggests Macao's net international investment position (NIIP) strengthened in 2020 to 784.4 percent of GDP from 336 percent of GDP in end of 2019. Gross assets rose to around 1460.5 percent of GDP, while gross liabilities increased to 676.1 percent of GDP. The large increase in gross assets and liabilities in percent of GDP is largely driven by the significant fall in GDP during 2020. In absolute terms, gross assets and liabilities increased by 1.6 and 3.3 percent in 2020 respectively.

Assessment. Macao SAR is estimated to have a large gross external position driven by the banking sector. The NIIP is projected to remain in a strong creditor position over the medium term given current account surpluses. The large net foreign assets suggest limited grounds for concern about medium term external solvency, but ongoing attention is necessary to the quality and liquidity of foreign assets in the event of a sudden fall in external liabilities.

2021 (% GDP)	NIIP: 784.4	Gross Assets: 1460.5	Res. Assets: 103.3	Gross Liab.: 676.1	Debt Liab.: 557.3
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Current Account

Background. Macao SAR's current account (CA) surplus declined to 13.8 percent of GDP in 2021 from 15.2 percent observed in 2020. This reflects the widening in service account balance as the gaming sector recovered somewhat in 2021. The deficit in the goods balance increased in 2021 as the rebound in imports driven by the recovery of the economy more than offset strong export performance. The improvement in services balance was compensated by the decline in the primary income surplus as outflows resumed with the recovery.

¹ Prepared by Caroline Chenqi Zhou.

Assessment. The EBA lite CA model estimates a cyclically adjusted CA surplus of 16.6 percent of GDP and a CA norm of 14.2 percent of GDP for 2021. To reflect the unique nature of the COVID-19 shock on Macao SAR's tourism dependent economy 8.9 percent of GDP adjustor is applied to the cyclically adjusted CA surplus as these factors are not accounted for by the standard EBA cyclical adjustment. This implies a 7.0 percent of GDP CA gap, which consists of an identified policy gap of -4.3 percent of GDP and an unexplained residual, which partly reflects Macao SAR's structural factors not fully captured by the EBA lite model. Overall, staff assesses the CA gap to be in the 5.5-8.5 percent of GDP range.

Macao SAR: Model Estimates for 2021		
(In percent of GDP)		
	CA model	REER model
CA-Actual	13.8	
Cyclical contributions (from model) (-)	2.8	
COVID-19 adjustor (+) 1/	8.9	
Additional temporary/statistical factors (+)	0.0	
Natural disasters and conflicts (-)	-1.4	
Adjusted CA	21.2	
CA Norm (from model) 2/	14.2	
Adjustments to the norm (+)	0.0	
Adjusted CA Norm	14.2	
CA Gap	7.0	-0.1
o/w Relative policy gap	-4.6	
Elasticity	-0.47	
REER Gap (in percent)	-15.0	0.2

1/ Additional cyclical adjustment to account for the temporary impact of the pandemic tourism (8.9 percent of GDP).
2/ Cyclically adjusted, including multilateral consistency adjustments.

Real Exchange Rate

Background. The MoP has been on a gradual real depreciation trend since the mid-2020, despite occasional bouts of volatility. In 2021 and 2020, the REER had depreciated 2 percent and 1 percent, relative to end December 2020 and end December 2019 respectively, as emerging markets faced increased capital outflows due to the outbreak of the pandemic and subdued gaming sector. The pace of REER depreciation has slowed down since June 2021 buttressed by positive sentiment on the vaccine and effective border control and travel bubble with the Mainland, ending the year by about 7 percent lower relative to its 2019 average.

Assessment. Using an elasticity of -0.46 and based on the staff CA gap, staff assesses the REER to be undervalued in the 12-18 percent range, with a midpoint of 15.0 percent. The EBA level REER gap is estimated at -16.9 percent.

Capital and Financial Accounts: Flows and Policy Measures

Background. In 2021, the capital and financial account balance continued to record a net outflow, though at much smaller magnitude compared with 2020, which was largely driven by improvement in direct investment flows.

Assessment. Significant foreign assets (including contingent support from Mainland parent banks) and prudent financial regulation limit risks from potentially volatile capital flows. Staff recommends phasing out the residency-based LTV measure that was tightened in 2017. Instead, linking the differentiation in LTV limits directly to banks' risk assessment of loans and borrowers could attain the same objective without differentiating between residents and nonresidents.

FX Intervention and Reserves Level

Background. Because Macao SAR has a currency board arrangement, international reserves have been built up in a non-discretionary way. International reserves increased to US\$25.1 billion (98.2 percent of GDP) as of end 2020, which is over three times short term debt and 19.8 months of imports.

Assessment. Macao SAR international reserves remain adequate for precautionary purposes. The M2 coverage ratio was at 85 percent at end 2020 and 88 percent at end-2021, although declining since it peaked in 2011 (at 352 percent of M2). Macao SAR also holds significant fiscal reserves (US\$77.2 billion or 301.4 percent of GDP as of end 2020) in foreign exchange (of which about US\$18 billion was funded out of reserves in 2012). These can be an additional buffer but are primarily intended for investment (domestically and abroad rather than supporting the exchange rate regime).

Appendix II. Risk Assessment Matrix¹

Risks	Likelihood	Impact	Policies
Conjunctural shocks and scenarios			
Outbreaks of lethal and highly contagious COVID-19 variants	High	Outbreaks of lethal and highly contagious COVID-19 variants could lead to subpar/volatile growth, with increased divergence across countries. Rapidly increasing hospitalizations and deaths could force lockdowns and increased uncertainty about the course of the pandemic, weighing on prospects of Macao SAR's gaming sector.	Accelerate efforts to promote the diversification of Macao SAR's economy through investing in education, improving business climate, and investing in ICT and climate-resilient infrastructure. Continue more targeted support to vulnerable groups and viable firms. Build-in incentives in policy support measures to facilitate reallocation of resources.
Disorderly transformations.	Medium	COVID-19 triggers structural transformations, but the reallocation of resources is impeded by labor market rigidities, debt overhangs, and inadequate bankruptcy resolution frameworks. This, coupled with a withdrawal of COVID-19-related policy support, undermines growth prospects and increases unemployment, with adverse social/political consequences. Adjustments in global value chains and reshoring (partly driven by geostrategic and national security concerns) shift production activities across countries.	The authorities should provide targeted fiscal stimulus with continued efforts to facilitate reallocation of resources through on-the-job trainings and wage subsidies. Safeguard financial stability through macro-prudential measures and liquidity provision and further strengthen the regulatory and prudential frameworks to address pockets of vulnerabilities.
De-anchoring of inflation expectations in the U.S. and/or advanced European economies.	Medium (for U.S.)/ Medium/Low (for Euro area)	A fast recovery in demand amid a lagging supply-side response could lead to a rapid de-anchoring of inflation expectations, which prompts central banks to tighten policies abruptly. The resulting sharp tightening of global financial conditions and spiking risk premia could tighten financial conditions for Macao SAR corporations at the time of still fragile recovery.	Continue to implement prudent fiscal policy and promote labor and product market flexibility. Deploy macro-prudential tools if needed to mitigate the economic impact of the undesirable tightening in financial conditions. Macao SAR's ample foreign exchange/fiscal reserves are sufficient to defend the currency peg if required.
Spillovers form the ongoing stress in Mainland China's property market.	Medium	Large-scale defaults in Mainland China's real estate sector and a sudden growth slowdown in Mainland China could prompt negative spillovers to Macao SAR's economy and financial system, given Macao SAR banks' large exposure to the Mainland.	Strengthen the regulatory and supervisory framework to contain risks from the significant exposure to Mainland China. Enhance monitoring of credit risk of borrowers from Mainland China. Deploy forward-looking risk assessments and strengthen the supervisory cooperation with the Mainland regulators.
Structural risks			
Intensified geopolitical tensions and security risks.	High	US-China tensions and heightened uncertainty could further weaken economic sentiment amid the pandemic, delaying recovery.	Extend the temporary and targeted fiscal stimulus with emphasis on low-income and vulnerable households. Accelerate efforts to diversify Macao SAR's economy to non-gaming tourism and non-tourism industries.
Cyber-attacks.	Medium	Attacks on critical infrastructure, institutions, and financial systems trigger systemic financial instability or widespread disruptions in socio-economic activities and remote work arrangements.	Invest in ICT infrastructure and further enhance cyber-security preparedness.
Higher frequency and severity of natural disasters related to climate change.	Medium	Climate change-related sea level rises constitute a substantial threat to Macao SAR, considering its low elevation, and small size. These would increase the probability of extreme coastal flood disasters, further threatening the human livelihood and social economic activities on the island.	Build early warning systems to monitor and evaluate Macao SAR's exposure to climate change risks. Scale up public investments in key areas of vulnerability, such as critical infrastructure, water security, and coastal management would be important. Improve the understanding and management of financial risks due to climate change.

¹ The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path. The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. The conjunctural shocks and scenario highlight risks that may materialize over a shorter horizon (between 12 to 18 months) given the current baseline. Structural risks are those that are likely to remain salient over a longer horizon.

Appendix III. External Sector Debt Sustainability Analysis

Macao SAR's external debt remains sustainable. Even though the external debt is high at about 557 percent of GDP, risks are mitigated by Macao SAR's positive net foreign asset position and the fact that much of the liabilities are obligations of bank branches to related parties. The recent surge of external debt as a percentage of GDP is mainly due to the decline of GDP in 2020. As the economy recovers, the external debt-to-GDP ratio is expected to return to the pre-pandemic level at 275 percent. Foreign borrowing will continue to rise as Macao SAR expands the provision of modern financial services.

Background. As of 2021Q3, Macao SAR had an estimated US\$170 billion in external debt (570 percent of GDP). There is no public external debt. The private external debt includes US\$145.7 billion in bank liabilities and US\$24.6 billion in nonbank liabilities.

- **Banks**—The largest category of external liabilities is nonresident interbank liabilities (70.6 percent of banking sector external liabilities). Within nonresident interbank liabilities, 71.4 percent are classified as other interbank liabilities of short term (i.e., less than one-year maturity). In addition, nonresident deposits—mostly short term—amount to 25.9 percent of banking sector external liabilities. In terms of overall currency composition, 48 percent of gross external liabilities are in U.S. dollar.
- **Nonbanks**—External debt by nonbank firms in Macao SAR is above 10 percent of the external debt by banks. Dealogic data suggests that the gaming sector is the main issuer of bonds and receiver of loans. As in the case with banks, a significant portion reflects related party obligations.

	Billion USD	% of Total	% of GDP
Total	170.3	100.0	570.0
Bank	145.7	85.5	487.6
Nonbank	24.6	14.5	82.5

Sources: AMCM, staff estimates.

Liability	Billion USD	% of GDP
Total	171.1	571.3
Nonresident Interbank	120.9	403.6
Other Interbank Liabilities	98.9	330.4
Up to 7 Days	32.1	107.3
8 Days to 1 Month	15.8	52.6
1 to 3 Months	15.6	52.0
3 to 6 Months	12.6	42.0
6 to 12 Months	7.1	23.8
1 Year and Above	12.5	41.6
NCDs	21.9	73.2
Nonresident Deposit	44.3	147.7
Time Deposits	36.5	121.7
Up to 1 Month	9.7	32.5
1 to 3 Months	13.7	45.9
3 to 6 Months	7.7	25.6
6 to 12 Months	4.9	16.4
1 Year and Above	0.45	1.5
Demand Deposits	1.0	3.5
Saving Deposits	6.5	21.7
Other Deposits	0.26	0.9
NCDs Held by Nonresidents	4.2	14.1
Other	1.7	5.8

Sources: AMCM

Projection. The underlying dynamics of Macao SAR's external debt are healthy. First, structurally high savings rates and limited domestic investment opportunities result in consistent double digit current account surpluses and large foreign asset accumulation (banks' foreign assets account 66 percent of total assets and 737 percent of GDP). Second, although the growth slowed in 2021, the economy is expected to gain the momentum in 2023 with the new investment, the recovery of tourists and the further integration with the Greater Bay Area. And third, the Base Rate of the discount window is reduced from

2 to 0.5 percent at the onset of the pandemic and has kept at the low level since then. These factors are projected to increase Macao SAR's net external position.

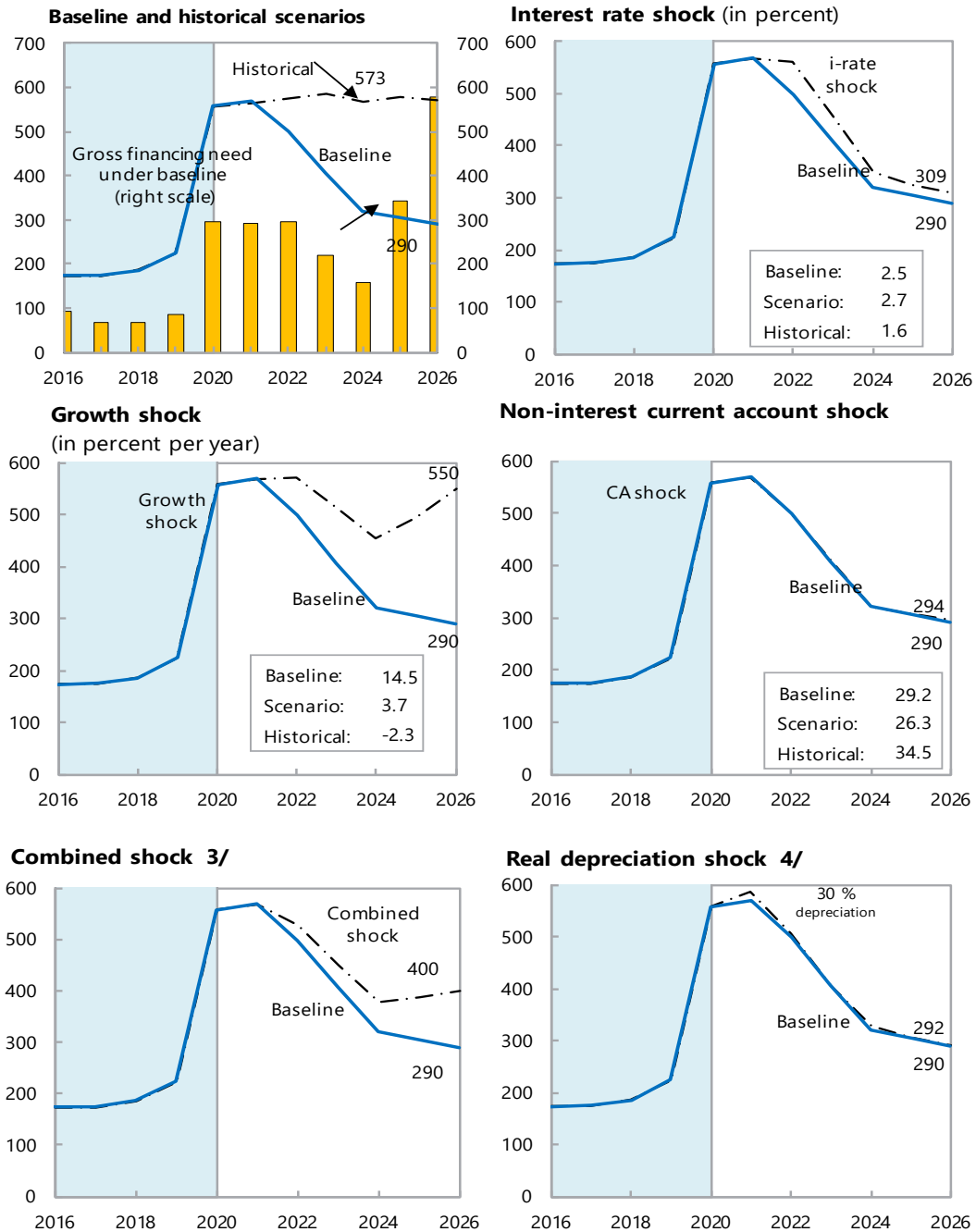
Risks. In general, the headline debt level likely overstates risks given the significant foreign external assets that increase the ability of banks to fund withdrawals without relying on AMCM's foreign exchange reserves. However, the ongoing stress in Mainland China's property sector might negatively affect the quality and liquidity of Macao SAR banks' foreign assets. Continued monitoring of the large external liabilities and external assets is important. The sustained recovery of the economic activity will be key in reducing external debt to GDP ratio.

External position of Banking Sector
(end of 2021)

Billion USD	Asset	% of Total	Liability	% of Total
Total	220.4	100.0	171.1	100.0
USD	121.1	55.0	82.1	48.0
HKD	38.9	17.7	29.7	17.3
RMB	45.3	20.6	51.8	30.3
MOP	3.2	1.4	1.9	1.1
Other	11.9	5.4	5.6	3.3

Sources: AMCM

Figure 1. Appendix III. Macao SAR: External Debt Sustainability: Bound Test 1/ 2/
(External debt in percent of GDP)



Sources: International Monetary Fund, Country desk data, and staff estimates.
 1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.
 2/ For historical scenarios, the historical averages are calculated over the ten-year period, and the information is used to project debt dynamics five years ahead.
 3/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.
 4/ One-time real depreciation of 30 percent occurs in 2010.

Table 1. Appendix III. Macao SAR: External Debt Sustainability Framework, 2017–2027
(In percent of GDP, unless otherwise indicated)

	Actual				Est		Projections						
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		
Baseline: External debt	174.0	185.8	223.4	557.4	568.6	498.8	405.9	320.0	305.0	290.0	275.0		
Change in external debt	0.8	11.8	37.6	334.0	394.6	-69.8	-92.9	-85.9	-15.0	-15.0	-15.0		
Identified external debt-creating flows (4+8+9)	-48.9	-44.0	-29.3	247.7	-93.3	-73.9	-102.5	-81.6	-52.1	-39.5	-33.8		
Current account deficit, excluding interest payments	-34.0	-35.7	-37.3	-25.6	-25.3	-14.7	-23.1	-31.4	-37.4	-39.4	-39.3		
Deficit in balance of goods and services	-46.1	-49.4	-50.7	-2.3	-13.9	-21.6	-34.9	-43.3	-46.3	-46.6	-45.6		
Exports	80.4	82.5	82.5	61.8	100.5	102.5	105.8	104.7	104.4	103.9	102.5		
Imports	34.3	33.1	31.9	59.5	86.7	80.9	70.9	61.4	58.1	57.3	56.9		
Net non-debt creating capital inflows (negative)	0.3	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4.2	4.2	4.2		
Automatic debt dynamics 1/	-15.2	-12.5	3.7	269.1	-72.3	-63.5	-83.8	-54.3	-18.8	-4.2	1.3		
Contribution from nominal interest rate	3.2	2.8	3.4	10.4	11.5	10.3	6.4	7.0	8.9	10.1	11.0		
Contribution from real GDP growth	-15.5	-10.3	4.7	260.3	-83.8	-73.8	-90.1	-61.3	-27.7	-14.4	-9.7		
Contribution from price and exchange rate changes 2/	-3.0	-5.0	-4.4	-1.7	2.6	-19.8	-22.0	-15.3	-9.1	-7.0	-6.5		
Residual, incl. change in gross foreign assets (2-3) 3/	49.7	55.7	66.9	86.3	104.6	4.1	9.7	-4.3	37.1	24.5	18.8		
External debt-to-exports ratio (in percent)	216.3	225.1	270.7	902.2	565.5	486.6	383.6	305.6	292.2	279.2	268.3		
Gross external financing need (in billions of US dollars) 4/	33.3	36.5	46.8	76.0	36.5	46.8	76.0	87.4	105.4	101.6	89.6		
in percent of GDP	66.0	66.1	84.7	297.0	10-Year	10-Year	66.1	84.7	297.0	291.9	293.9	219.5	157.2
Scenario with key variables at their historical averages 5/					565.3	576.3	586.8	568.2	578.8	572.6	560.5		
Key Macroeconomic Assumptions Underlying Baseline					Historical Average	Standard Deviation							
Real GDP growth (in percent)	10.0	6.5	-2.5	-54.0	-2.3	21.5	6.5	-2.5	-54.0	17.6	15.5	23.3	18.6
GDP deflator in US dollars (change in percent)	1.8	2.9	2.4	0.8	4.4	3.1	2.9	2.4	0.8	-0.5	3.6	4.6	3.9
Nominal external interest rate (in percent)	2.1	1.7	1.8	2.2	1.6	0.4	1.7	1.8	2.2	2.4	2.2	1.7	2.1
Growth of exports (US dollar terms, in percent)	17.5	12.4	-0.1	-65.3	1.0	28.3	12.4	-0.2	-65.3	90.5	22.0	33.2	22.0
Growth of imports (US dollar terms, in percent)	8.0	5.7	-3.9	-13.5	6.0	13.7	5.7	-3.9	-13.5	70.6	11.7	13.1	6.8
Current account balance, excluding interest payments	34.0	35.7	37.3	25.6	34.5	5.9	25.3	14.7	23.1	31.4	37.4	39.4	39.3
Net non-debt creating capital inflows	-0.3	-4.3	-4.3	-4.3	-4.2	2.3	-4.3	-4.3	-4.3	-4.2	-4.2	-4.2	-4.2

1/ Derived as $[r - g - r(1+g) + ea(1+r)] / (1+g+r+gr)$ times previous period debt stock, with r = nominal effective interest rate on external debt; r = change in domestic GDP deflator in US dollar terms, g = real GDP growth rate, e = nominal appreciation (increase in dollar value of domestic currency), and a = share of domestic-currency denominated debt in total external debt.

2/ The contribution from price and exchange rate changes is defined as $[-r(1+g) + ea(1+r)] / (1+g+r+gr)$ times previous period debt stock. r increases with an appreciating domestic currency ($e > 0$) and rising inflation (based on GDP deflator).

3/ For projection, line includes the impact of price and exchange rate changes.

4/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.

5/ The key variables include real GDP growth; nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.

6/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

Appendix IV. Implementation of Main Recommendations of the 2019 Article IV Consultation¹

Fund Recommendations	Policy Actions
Fiscal Policy:	
<ul style="list-style-type: none"> Establish a medium-term fiscal framework and implement an explicit counter-cyclical fiscal framework. (7) 	<ul style="list-style-type: none"> No action taken so far.
<ul style="list-style-type: none"> Priority infrastructure and social spending, especially health and education spending, should be boosted in a targeted manner, to support the diversification agenda and foster inclusion. (13) 	<ul style="list-style-type: none"> The Public Investment Plan (PIDDA) launched in 2020, resulted in higher government capital expenditure on projects such as the "Hospital Building, Logistics Support Building and Multi-Use and Administrative Services Building of the Islands Health Care Complex – superstructure construction", "Macao Light Rail Extension Line of Hengqin Island" and "Fourth Maritime Bridge – Macau Taipa".
Property Market:	
<ul style="list-style-type: none"> The residency-based differentiation in the LTV framework should be replaced with alternative measures. Housing affordability concerns should be addressed by a broad set of supply policies including advancing regulatory policy within a transparent framework that supports private sector supply and boosts well-targeted public housing supply, including via higher infrastructure spending. (34) 	<ul style="list-style-type: none"> No changes to the LTV framework since 2018 as the AMCM still sees merit in the residency-based LTV framework. A new policy vision of "a five-rung housing ladder" was proposed in the Policy Address for the fiscal year of 2021 to serve the needs of residents with different economic abilities.
Financial Sector:	
<ul style="list-style-type: none"> Supervisory and regulatory cooperation across jurisdictions over the quality and liquidity of foreign assets is recommended. (33) 	<ul style="list-style-type: none"> The AMCM has established a long-term supervisory and regulatory cooperation mechanism with relevant authorities of Hong Kong and Mainland China through the signing of memorandums of understanding (MOUs). Under the framework of the MOUs, the AMCM conducts regular bilateral meetings with Hong Kong and Mainland China authorities on supervisory and regulatory matters of mutual concern.
<ul style="list-style-type: none"> The framework for sound fintech adoption could be further strengthened. (33) 	<ul style="list-style-type: none"> In 2019, the Macao Cybersecurity Law was launched and the AMCM issued Cyber Resilience guideline to strengthen the cyber risk management and facilitate adoption of fintech in the sector. The AMCM is currently revising the guidelines related to technology risk management and outsourcing arrangements, in order to give additional guidance regarding the emerging risks associated with new technologies and the use of cloud computing outsourcing service.
<ul style="list-style-type: none"> Steps to strengthen the AML/CFT framework, particularly for gaming sector should be sustained. (33) The oversight of junket promoters' AML/CFT measures needs strengthening. (17) The 2017 regulatory framework for monitoring cross-border movement of cash and bearer negotiable instruments should be ensured its effective implementation. (17) 	<ul style="list-style-type: none"> In 2019, the AMCM updated the AML/CFT guideline according to the revised 40 FATF Recommendations and issued a supplementary AML/CFT guidance on "Gaming-related" customers to ensure the effective implementation of relevant AML risk controls. In 2022, a thematic review on AML/CFT measures over customers related to the gaming sector is launched by first rolling out a comprehensive sector-wide survey and then carrying out respective onsite reviews. The Macao SAR has developed and endorsed its second 5-year AML/CFT/CPF Strategic Plan in 2020.

¹ The numbers in parentheses represents the number of paragraphs in 2019 Article IV consultation discussion staff report where the recommendation can be found.



PEOPLE'S REPUBLIC OF CHINA—MACAO SPECIAL ADMINISTRATIVE REGION

STAFF REPORT FOR THE 2022 ARTICLE IV CONSULTATION
DISCUSSIONS—INFORMATIONAL ANNEX

March 14, 2022

Prepared By

Asia and Pacific Department

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FUND RELATIONS

Membership Status

As a Special Administrative Region of the People's Republic of China, Macao SAR is not a member of the Fund. The first Article IV consultation discussions since the handover in 1999 took place during April 22–29, 2014 and the Board discussion took place in July 2014. Its Article IV consultation discussions are on a 24-month cycle. The latest Article IV consultation discussions took place during February 13–25, 2019. Outside of the Article IV process, the Fund has maintained a relationship with Macao SAR, focused mainly on technical assistance and training. STA provided technical assistance with compiling FSIs in 2013 and on the balance of payments in 2008, MCM completed an assessment of the financial sector regulation and supervision under the OFC program in 2002 and 2008/2009 (published in 2011), and LEG provided advice on AML/CFT issues resulting in new legislation in 2006.

Exchange Rate Arrangement

Since 1989, Macao SAR has been operating under a currency board arrangement. On April 7, 1977, the exchange rate of Macao SAR's currency, the pataca, was formally delinked from the Portuguese escudo and linked to the Hong Kong dollar at a central rate of MOP 1.075/HK\$, and the transaction rates were allowed to deviate from this rate as long as they were within a band of +/-1 percent of the central rate. Effective January 1979, the central rate of the pataca was set at MOP 1.038/HK\$, and in September 1983, was adjusted to MOP 1.03/HK\$, and the transaction rates were to take place within a narrow band on either side of the central rate. This arrangement continued through May 1987.

Since then, the pataca has been tied to the Hong Kong dollar at a rate of MOP 1.03/HK\$ and is therefore also in effect linked to the US\$, at around MOP8/US\$. Notes are issued by two banks, which deliver Hong Kong dollars to the AMCM in return for noninterest bearing certificates of indebtedness, which serve as the backing for the banknote issue. The Hong Kong dollars are then counted as part of the official foreign exchange reserves held at the AMCM. Under the currency board arrangement, the pataca is 100 percent backed by foreign assets. There are no exchange restrictions on current and capital account transactions. With capital freely mobile, monetary conditions in Macao SAR are strongly influenced by conditions in Hong Kong SAR and the United States market.

STATISTICAL ISSUES

(As of February 28, 2022)

I. Assessment of Data Adequacy for Surveillance	
General: Data provision is broadly adequate for surveillance.	
National Accounts: Macao SAR compiles quarterly and annual estimates of GDP by expenditure category, at current prices and in volume terms. The volume measures are derived using annual chain linking methods. The estimates by type of activity (production approach) are compiled in current prices and in volume terms only at annual frequency, due to the unavailability of relevant quarterly deflators. A major revision of the compilation process was undertaken in 2016. Macao SAR reports annual and quarterly GDP to the IMF for publication in <i>International Financial Statistics (IFS)</i> ; latest data available: 2021: Q3. STA has not provided technical assistance in national accounts to Macao SAR over the past ten years.	
Price Statistics: The Statistics and Census Service has produced a monthly consumer price index (CPI) since October 2019. The current weights were derived from the 2017/18 household income and expenditure survey. The Statistics and Census Service CPI-A, that covers households with an average monthly expenditure of MOP 12,000 to MOP 35,999 (about 50 percent of households), and CPI-B, that covers households with an average monthly expenditure of MOP 36,000 to MOP 62,999 (about 30 percent of households). These detailed indexes are also aggregated to a composite CPI representing these two groups. The CPI is disseminated within 30 days after the end of each reference period.	
Government Finance Statistics: Macao SAR compiles and disseminates detailed annual consolidated general government fiscal statistics (covering the budgetary and extrabudgetary central government, and the social security fund) consistent with the <i>GFSM 2014</i> framework for inclusion in the <i>Government Finance Statistics</i> Database, along with summary quarterly general government fiscal statistics. However, the GFS series could be usefully augmented by the reporting of a financial balance sheet, as outlined in the 2010 Board decision regarding government finance statistics to strengthen fiscal analysis.	
Monetary and Financial Statistics: The Monetary Authority of Macao (AMCM) reports, on a timely basis, monthly monetary data to STA for publication in IFS. These data are reported in the format of the Standardized Report Forms (SRFs) for central bank (1SR) and other depository corporations (2SR), monetary aggregates (5SR) and interest rates and share prices (6SR), which embody the IMF-recommended methodology for compiling monetary statistics. The AMCM reports data on some key indicators of the Financial Access Survey (FAS), including the two indicators (commercial bank branches per 100,000 adults and ATMs per 100,000 adults) adopted by the U.N. to monitor Target 8.10 of the Sustainable Development Goals.	
Financial sector surveillance: The AMCM produces thirteen core and seven encouraged financial soundness indicators (FSIs) for deposit takers, and two real estate market FSIs in accordance with 2019 FSI Guide. All FSIs are reported on a quarterly basis to STA for dissemination on the IMF website.	
External sector statistics: The AMCM compiles and disseminates annual balance of payments (BOP) statistics. There is no publication of external debt data as well as International Investment Position (IIP) Statistics. Lack of these data is not conducive to strengthening the balance sheet approach framework. Since 2012, the BOP of Macao SAR has been compiled following the methodology and classification of the sixth edition of the <i>Balance of Payments and International Investment Position Manual (BPM6)</i> . Transactions with Mainland China and Hong Kong SAR are included in the BOP as external transactions. BOP data for 2002–11 were originally compiled under the format of the fifth edition of the <i>Balance of Payments Manual (BPM5)</i> and converted to the <i>BPM6</i> format. Although, external sector statistics are not yet compiled on a quarterly basis, Macao SAR participates in major Fund Statistical Initiatives, such as the Enhanced General Data Dissemination System (e-GDDS), the Coordinated Portfolio Investment Survey (CPIIS), and the Coordinated Direct Investment Survey (CDIS). Direct investments abroad by Macao SAR household sector are not covered in external sector statistics. Household portfolio and other investments (except deposits) abroad and income on foreign investments only cover those transactions going through local authorized financial institutions, and hence, transactions outside the local financial channel are not recorded. In addition, compensation of Macao SAR employees earned abroad is not covered in the BOP.	
II. Data Standards and Quality	
Macao SAR participates in the IMF's enhanced General Data Dissemination System (e-GDDS) since August 2007 and has implemented a National Summary Data Page for the dissemination of key macroeconomic statistics. The metadata for key macroeconomic indicators is available on the country page on the IMF's Dissemination Standards Bulletin Board.	No data ROSC is available.

Macao SAR: Table of Common Indicators Required for Surveillance

(As of February 28, 2022)

	Date of Latest Observation	Date received	Frequency of Data ⁵	Frequency of Reporting ⁵	Frequency of Publication ⁵
Exchange Rates	12/21	02/22	M	M	M
International Reserve Assets and Reserve Liabilities of the Monetary Authorities ¹	12/21	02/22	M	M	M
Reserve/Base Money	12/21	02/22	M	M	M
Broad Money	12/21	02/22	M	M	M
Central Bank Balance Sheet	12/21	02/22	M	M	M
Consolidated Balance Sheet of the Banking System	12/21	02/22	M	M	M
Interest Rates ²	01/22	02/22	M	M	M
Consumer Price Index	09/21	11/21	M	M	M
Revenue, Expenditure, Balance and Composition of Financing – General Government	Q3/21	11/21	Q	Q	Q
Revenue, Expenditure, Balance and Composition of Financing – Central Government	Q3/21	11/21	Q	Q	Q
Stocks of Central Government and Central Government - Guaranteed Debt ³	...	...	...	...	...
External Current Account Balance ⁴	2020	08/21	A	A	A
Exports and Imports of Goods and Services	2020	08/21	A	A	A
GDP/GNP	Q3/21	11/21	Q	Q	Q
Gross External Debt	NA	NA	NA	NA	NA
International Investment Position	NA	NA	NA	NA	NA

¹ Any reserve assets that are pledged or otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.

² Both market-based and officially-determined, including discount rates, money market rates, rates on monetary bills.

³ Macao SAR has no government debt.

⁴ Goods trade data from external statistics are available are provided monthly. Services trade data in BOP format are released annually with the current account statistics.

⁵ Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A); Irregular (I); Not Available (NA).