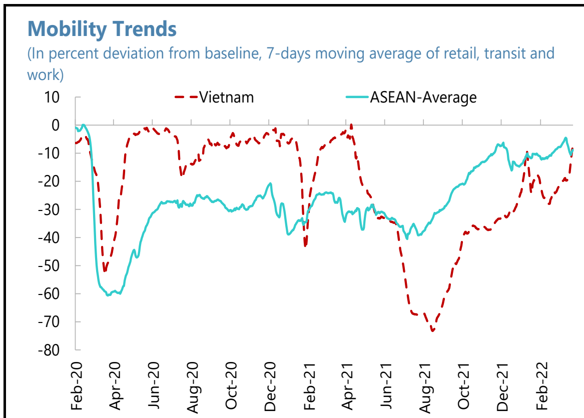
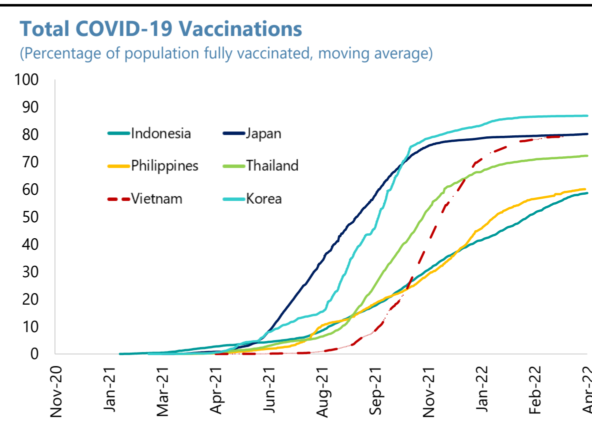
CONTEXT AND RECENT DEVELOPMENTS

1. Vietnam entered the pandemic with robust growth and favorable policy buffers. Prudent policies resulted in a prolonged period of high growth, one of the highest in the region, price stability, and low public debt ratios. Strong FDI and trade flows boosted external buffers. Banks entered the pandemic in a relatively strong position. As elsewhere, COVID-19 led to disruptions to economic activity, but successful containment measures, coupled with supportive policies, made Vietnam the regional top-performing economy in 2020.

2. A severe outbreak in April 2021 led to a remarkable vaccination rollout. The delta variant paired with low vaccination rates tested the country's COVID-19 response strategy. Progressively more stringent containment measures were adopted starting in May 2021 (Figure 1). Infections and fatalities were highest in the Southern provinces, which account for the lion's share of industrial production. Starting in Fall 2021, an impressive vaccination drive—more than 77 percent of the population is now fully vaccinated, with booster shots and children's vaccination under way—facilitated the shift from a zero-tolerance strategy towards living with the virus.[1]



Sources: Google COVID-19 Community Mobility Reports

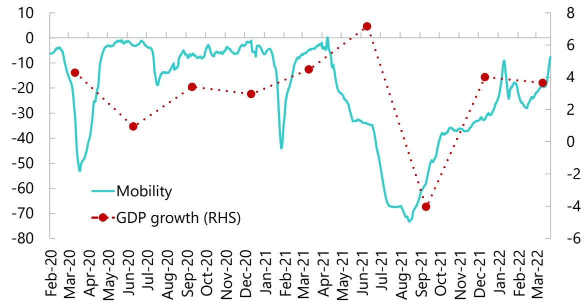


Sources: Our World in Data and IMF staff calculations.

[1] Around 37.8 million booster shots have been administered as of April 24, 2022. Vietnam has relied on a diverse portfolio of vaccines, led by Pfizer-BioNTech (Figure 1).

GDP Growth and Mobility

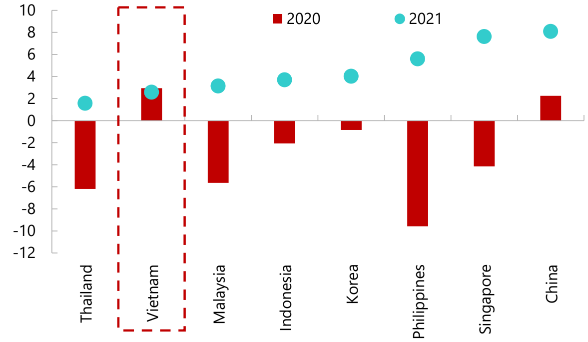
(GDP quarterly y/y seasonally adjusted growth; mobility in percent deviation from baseline, 7-day moving average of retail, transit and work)



Sources: Google COVID-19 Community Mobility Reports, Vietnamese authorities and IMF staff calculations.

Real GDP Growth Comparison

(In percent)



Sources: IMF World Economic Outlook Database

3. Growth resumed but remains below the pre-pandemic trajectory. GDP tracked closely the seesaw pattern of mobility, rising strongly in 2021H1, before recording a historical contraction of 6.3 percent y/y in Q3, and then rebounding since Q4. Real GDP grew by 2.6 percent on the year, slower than in 2020 and regional peers, owing to more protracted lockdowns and local supply disruptions. On the expenditure side, government spending only partially offset the pandemic's adverse impact on private consumption, and net exports were weaker than in previous years. High frequency indicators point to stronger momentum going into 2022, with rising retail sales, industrial production, and firm entry (Figures 2-3).

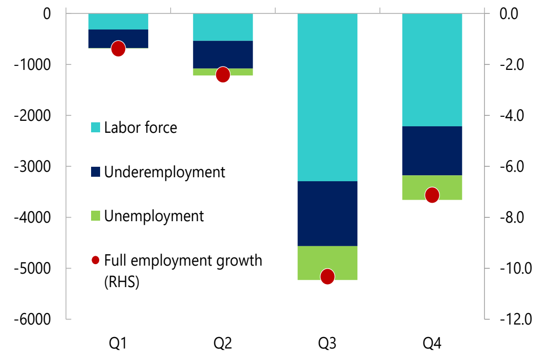
4. Labor market shows signs of recovery, but slack remains. The delta outbreak exacerbated the still-soft labor market conditions prevailing in early 2021 (Annex I).[2] Labor force participation and employment have been gradually recovering after declining to their lowest levels in a decade. Informal, young, and low-skilled workers were the hardest hit, potentially fueling inequality.[3] The recovery in manufacturing was initially constrained in selected industries as migrant workers, with limited access to safety nets, left the hardest-hit industrial provinces.[4] Labor shortages appear to have largely eased, but underemployment remains high, particularly in the services sector.

[2] An estimated 0.7 percent of GDP in aggregate household income was lost in 2021Q3 alone on account of job losses and lower monthly wages and incomes (World Bank, 2022).

[3] COVID-19 slowed but did not reverse the progress of rapid poverty reduction in Vietnam (World Bank, 2021), but its heterogenous impact on the labor market could fuel inequality.

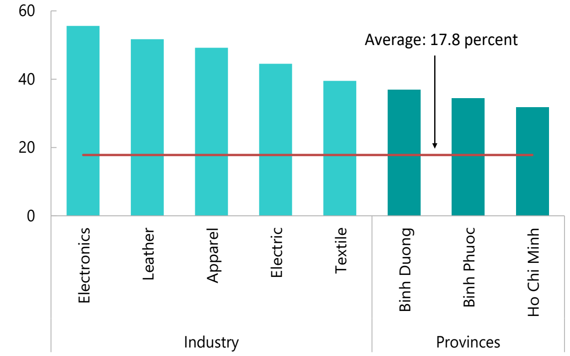
[4] One group of migrant workers returned home at the beginning of the lockdown in early July. A second wave of migrant workers left the Southeast region right after the end of the lockdown in early October. As of mid-December, a total of 2.2 million people (4 percent of the labor force) had left the main urban centers and returned to their hometowns.

Change in Full Time Employment by Component in 2021
(Over same quarter of 2019; LHS: thousand persons, RHS: percent)



Sources: GSO and IMF staff calculations.

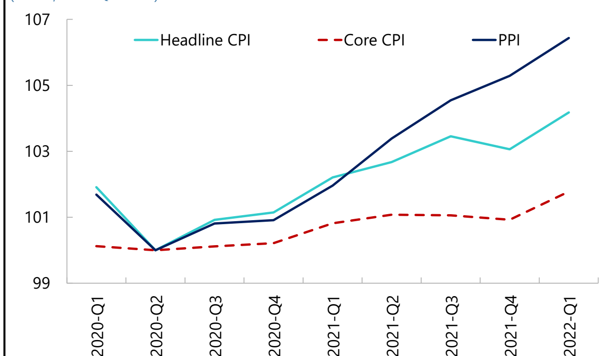
Top Industries and Provinces Facing Labor Shortage
(Percent of firms, Q3 2021)



Sources: GSO and IMF staff calculations.

5. **Consumer price inflation is edging up but remains subdued despite the surge in fuel and producer prices.** Global supply chain disruptions and rising commodity prices increased input and transportation costs, driving up producer prices. However, core inflation remains low, and headline inflation in April was still below the central bank's 4 percent target, reflecting limited pass-through from producer prices, a wide output gap, and relatively stable food and administered prices (Annex II).[5]

Consumer and Producer Prices
(Index, 2020Q2=100)

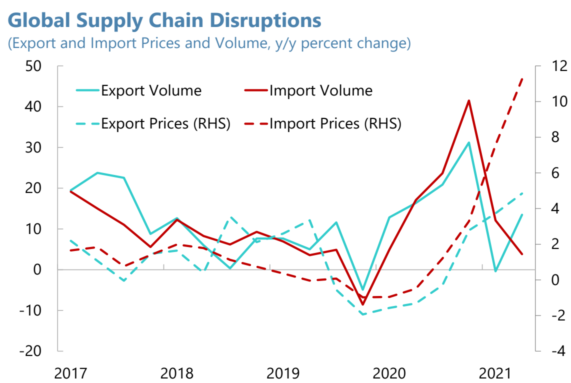


Sources: Vietnamese authorities and IMF Staff Calculations

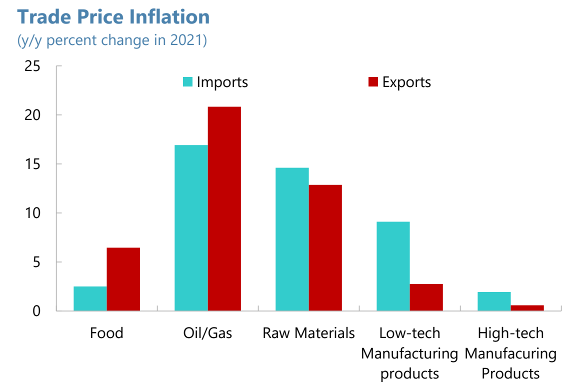
6. **The current account balance declined markedly, reflecting pandemic-related disruptions.** Despite robust external demand, supply bottlenecks combined with higher import prices and muted tourism served to markedly narrow the current account balance to a deficit of 1 percent of GDP in 2021, from a surplus of 4.4 percent of GDP in 2020 (Figure 4). FDI inflows remained broadly resilient, while other net capital inflows increased, reflecting higher portfolio investments and short-term external borrowing by financial institutions. Overall, gross foreign exchange (FX) reserves increased by USD 14.3 billion, of which around USD 1.6 billion are due to the Special Drawing Rights (SDR) allocation. The real effective exchange rate appreciated slightly and the external position in 2021 is assessed to be stronger than implied by medium-term

[5] Upstream inputs captured by the Producer Price Index (PPI) account for a relatively small share of materials purchased by producers of final consumption goods (Annex II). As in many other ASEAN countries, more moderate increases in local food and energy prices in 2021 than those observed worldwide, as well as smaller increases in shipping costs have kept inflation below target in early 2021. The recent 50 percent reduction in the environmental protection tax (taxes account for 40 percent of the price at the pump) through end-year has also limited the pass-through of fuel prices to end-user prices.

fundamentals and desired policies (Annex III).[6] This is partly due to a less expansionary fiscal response to the pandemic compared to Vietnam's trading partners.



Sources: HAVER Analytics, IMF Staff Calculations



Sources: Haver Analytics, IMF Staff Calculation

7. Macroeconomic policies were broadly supportive, but the fiscal response was beset with implementation challenges (Figures 5-7 and Annex IV).

- **Monetary policy.** In early 2021, the State Bank of Vietnam (SBV) moved away from spot FX interventions toward the use of 6-month forward purchase contracts.[7] This shift facilitated greater exchange rate flexibility, while temporarily limiting reserve accumulation and VND liquidity injections. Although accommodative monetary policies remain in place, with abundant liquidity in the banking system, interbank rates have ticked up from the historic lows of 2020.

- **Financial policy.** The SBV extended loan forbearance until June 2022 and encouraged banks to waive or reduce interest rates and fees and limit dividend payouts.[8] Bank deposit and lending rates have declined since mid-2020. As a result, credit expanded faster than output, at 13.5 percent y/y at end-2021, largely channeled to real estate, manufacturing, and trade.

[6] Large historical revisions to balance of payments data, notably upward changes in investment income of FDI firms, suggest significant challenges with determining the precise magnitude of misalignment (IMF CR 21/42).

[7] The SBV replaced the FX spot intervention with 6-month forward purchase contracts in 2021, to delay domestic liquidity injections and reserve accumulation, following which a continued appreciation of the SBV spot rate was allowed since August. After a short period of depreciation pressures in early December due to higher seasonal demand for FX, appreciation resumed.

[8] Since the onset of the pandemic, banks reduced or exempted interest rate payments for 2.3 million clients, whose outstanding loans accounted for 34 percent of total loans. State-owned commercial banks (SOCBs) applied rate cuts to most or all of their loan books (80-100 percent of total loans), whereas private banks applied rate cuts to 26 percent of their total loans, on average. As of end-2021, restructured loans comprised around 2.8 percent of the total loan book.

- **Fiscal policy.** Budgetary outlays for health, social assistance for households, and liquidity measures for firms increased in 2020-21. Tax deferrals and cuts in administrative charges benefitted firms of all sizes (Annex V). Off-budgetary measures increased in 2021 as the surplus in the unemployment insurance fund was used to temporarily raise benefits.[9] While execution improved somewhat, it continued to be hamstrung by capacity constraints and weaknesses in the social protection system.[10]

Fiscal Measures in Response to COVID-19

	Announcement		Implementation			
	2020	2021	2020		2021	
	% of GDP	% of GDP	% of GDP	% of plan	% of GDP	% of plan
Total Measures	**4.1**	**5.1**	**1.9**	**47.0**	**3.4**	**66.1**
Budget measures	**3.7**	**3.6**	**1.8**	**48.6**	**2.3**	**64.5**
Support for firms						
VAT, CIT and land rental deferrals	2.6	1.4	1.2	47.0	1.1	80.8
Exemption and reduction of other taxes, fees and charges	0.5	0.3	0.3	63.6	0.3	91.7
Support for households						
Cash transfers	0.5	0.3	0.2	35.6	0.3	99.7
Additional health spending	0.1	1.5	0.1	79.2	0.5	35.5
Off-budget measures	**0.5**	**1.6**	**0.2**	**34.5**	**1.1**	**69.8**
Measures by Extra Budgetary Funds (EBFs)	0.1	1.2	0.0	8.2	0.9	74.5
Concessional lending	0.2	0.2	0.0	0.3	0.0	8.9
Cutting utility prices	0.2	0.2	0.2	100.0	0.2	100.0

Source: Vietnamese authorities and IMF Staff calculations

Note: Support to firms largely constitued of tax and fee deferrals with little direct fiscal costs.

8. **Financial conditions remain accommodative, but uncertainty around bank asset quality is high.** While overall banking system profitability increased slightly, asset quality deteriorated in 2021 (Figure 6). Impaired loan ratios would have been around 6.3 percent at end-2021 if not for forbearance on loan classification, which was extended until June 2022. Despite improvement in recent years, thin capital buffers, especially in some systemically important SOCBs, and varied provisioning coverage ratios among banks suggest that asset quality concerns are pronounced for some banks. While non-financial corporate balance sheet indicators for large firms appear to be resilient, a sizeable share of small and medium-sized enterprises (SMEs) remain vulnerable, with weak balance sheets even before the pandemic (IMF WP/20/260 and Annex V).

9. **Property and corporate bond markets risks are rising.** Easy financial conditions contributed to record-high corporate bond issuances and equity and property market valuations.[11] Price pressure points are largely seen in land sales, high-end housing in major cities,

[9] The Vietnam Social Security provided blanket support by electronically disbursing around USD 1.3 billion (0.4 percent of GDP) to all formal workers in October and November 2021.

[10] The State Audit Office of Vietnam audits all public finances, including those COVID-related.

[11] Vietnam is receiving IMF TA to develop and publish a residential property price index, as comprehensive data on land and property values is lacking. The housing boom is reportedly led by supply shortages, lower lending

(continued)

and mega-developments in coastal areas.[12] Besides sizable direct exposure to the real estate sector in their loan portfolios, banks face indirect exposure through holding of corporate bonds issued by real estate companies. These companies have fairly robust debt servicing capacity but are more leveraged than the rest of the economy, and some were hit hard by the pandemic-induced drop in tourism. Recent policies to moderate systemic risks include measures to limit excessive leverage (e.g., higher risk weights for real estate) and recommendations urging prudent loan origination, particularly for property purchases.

10. The current policy focus is on the implementation of Vietnam's Program for Recovery and Development (PRD). Early this year, the National Assembly approved a significant support package for 2022-23, estimated at 4.1 percent of GDP (around USD 15 billion). In addition to near-term fiscal measures to boost demand, the package envisages stepped-up spending on health, digital, and physical infrastructure. Credit support measures include interest rate subsidies for household businesses and firms, and the possible extension of loan forbearance and other regulatory measures as needed. In tandem, a broad reform agenda is expected to cover climate change, digital transformation, innovation, financial inclusion, business climate, education, and the labor market.

OUTLOOK AND RISKS TO THE RECOVERY

11. Staff projects the economy to grow by 6.0 percent in 2022 and 7.2 percent in 2023. This forecast assumes continued vaccine effectiveness, abated supply disruptions, and normalization of activity proceeding apace during 2022. The fiscal stimulus under the PRD and strong export growth are expected to compensate for a gradual rebound in private consumption as households rebuild buffers. Inflation is projected to pick up as the war in Ukraine exerts upward pressure on commodity prices.[13] Headline inflation is projected at 3.9 percent, and core inflation at 2.3 percent by end-2022.[14] The current account surplus is expected to increase modestly to around 1 percent in 2022-23, and financial inflows strengthen as the economy reopens and a strong recovery takes hold.

12. Economic scarring from the pandemic could weigh on the medium-term outlook. Potential growth is expected to recover in 2023-24, with the normalization of economic activity and labor market conditions. Investments and reforms under the PRD would play a critical role in

rates, lack of alternative investment opportunities, and search for yield. Household debt stood at around 50 percent of GDP at end-2020, lower than many regional peers. Of this amount, 25 percent was in housing-related loans (mostly mortgages).

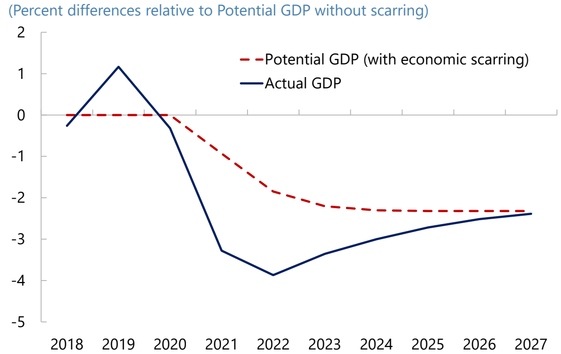
[12] Land and house prices grew faster than wages, which is likely to have widened wealth inequality. The sharp fall in new housing supply during the pandemic suggests that affordability is likely to remain a concern going forward.

[13] Higher fuel prices will weigh on 2022 headline inflation both directly and through spillovers from energy-intensive sectors to the rest of the economy.

[14] The rise in core inflation is projected to be limited given the remaining slack in the economy and muted pressure from domestic food prices, which are relatively insulated from the rise in global food prices in light of Vietnam's food basket composition and self-sufficiency.

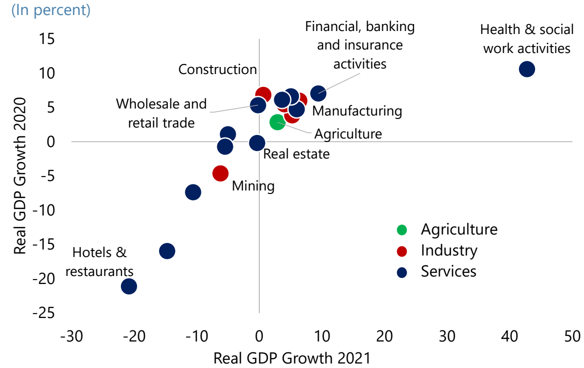
limiting economic scarring, compensating for slower capital accumulation during the pandemic and boosting productivity. Nonetheless, the slow recovery in contact-intensive sectors and labor market dislocation (with skill mismatches and workers taking lower-productivity jobs) could lead to some hysteresis. Staff estimates that the output loss due to scarring could be around 3 percent of GDP in the medium term.

GDP Projections
(Percent differences relative to Potential GDP without scarring)



Sources: Vietnamese authorities and IMF staff calculations.

Real GDP by Sector
(In percent)



Sources: Vietnamese authorities and IMF staff calculations.

13. The outlook is uncertain, and risks are tilted to the downside (Annex VI).

- **External risks** are dominated by the intensification of geopolitical tensions, which could adversely affect economic activity and inflation through weaker external demand, higher commodity prices, and extended global supply chain disruptions. A more significant slowdown in China or outbreaks of new lethal and highly contagious COVID-19 variants are other important downside risk to growth. Faster-than-expected tightening of monetary policy in advanced economies could create exchange rate pressure and complicate monetary policy. Benefits from recently ratified free trade agreements and favorable reconfigurations of global supply chains pose upsides.

- **Domestic risks** are centered around the macro-financial implications of developments in the real estate and corporate bond markets. Borrowers' vulnerability to rising interest rates, funding problems in the leveraged real estate sector, or a sharp correction in real estate prices could amplify balance sheet vulnerabilities. A surge in food and core inflation could de-anchor inflation expectations and compress households' real incomes and spending. Weak execution of the PRD could further stymie the recovery, while full implementation provides an upside risk. Climate change poses a serious threat to longer-term growth prospects.

Authorities' Views

14. The authorities agreed with staff's assessment and emphasized that the outlook remains uncertain. They forecast growth in 2022 to be in the range of 6 to 6.5 percent, on the

back of the positive momentum from the economic reopening and the implementation of the PRD. Like staff, the authorities expected a further rise in inflation in the near term, driven by fuel prices and supply chain disruptions, but expect inflation to remain within their 4 percent target. Nonetheless, they expressed concern about the uncertain international environment, with spillovers from geopolitical tensions and a China slowdown seen as notable risks. They broadly agreed with staff's assessment of Vietnam's external position but noted that external risks, Vietnam's vulnerability to external shocks given a large FDI sector, and rising private external debt called for building additional external buffers.

POLICY DISCUSSION

15. There was broad agreement that the priorities are to entrench the recovery, preserve financial stability, and promote inclusive growth. Discussions centered on the policy mix under different scenarios and policies to bolster long-term prospects.

- ***Recovery, uncertainty, and exit.*** Policymaking should be agile, and the size and composition of policy support proactively adjusted to the pace of recovery and clearly communicated and implemented to reduce uncertainty. Timing and sequencing of policy normalization should also be balanced against heightened downside risks and emerging banking system strains. Once the recovery is firmly established, mobilizing domestic revenue and shoring-up banking system resilience are essential.
- ***Fiscal and monetary policy mix.*** With economic slack persisting and available fiscal space, the policy mix should remain accommodative, with fiscal policy serving as the first line of defense against downside growth risks given rising inflationary pressures. More targeted fiscal measures could alleviate the trade-offs that monetary policy may face if stagflationary pressures materialize. Greater vigilance is warranted to contain systemic financial risks, particularly from the real estate sector, while avoiding a disorderly tightening of financial conditions.
- ***Transitioning to a more resilient and inclusive economy*** will entail tackling pervasive economic dualism, boosting productivity, combatting corruption, improving governance, and strengthening policy and data frameworks.[15] Climate change policies would benefit from a clear mapping of ambitions into actions and a more integrated strategy.

[15] Economic dualism is manifested in a sizeable share of SMEs with limited financial resources and low productivity, the still-substantial, albeit declining, footprint of state-owned enterprises, an export-led FDI sector, highly integrated with global value chains but with limited domestic linkages, lagging service sector productivity, and widespread labor informality (IMF CR 21/42).

A. Fiscal Policy

16. The PRD appropriately prioritizes health, economic recovery, and medium-term growth prospects, but spending transparency, accountability and efficiency, and steadfast implementation are key. The package envisages temporary tax relief, liquidity support for firms, spending on healthcare education, and infrastructure investment. The markedly high investment spending on social, transport, green, and digital infrastructure (1.4 percent of GDP) provides an important offset to the hysteresis impacts of the pandemic, but low efficiency and weak execution could undermine its multiplier effect.

Program for Recovery and Development, 2022-23

	VND (trillion)		% GDP	
Tax	70		0.8%	
Reduce taxes (including standard VAT by 2ppts)		64		0.8%
VAT, CIT, PIT and land rental deferrals		6		0.1%
Spending	277		3.3%	
Health: medical infrastructure, training, import vaccines		60		0.7%
Investment capital (traffic, IT, digital, green)		113.55		1.4%
Interest rate support (2%/year) via commercial banks		40		0.5%
VBSP (preferential credit policy & sovereign guarantees)		43.4		0.5%
Modernization of social security facilities		3.15		0.0%
Rent for workers		6.6		0.1%
Support to EBFs		10.3		0.1%
Total package	**347**		**4.1%**	

Sources: Vietnamese authorities.

17. Amid economic slack and downside risks, the PRD is well placed to entrench the recovery. The headline fiscal deficit is projected to widen to 4.7 percent of GDP in 2022—a 2.4 percentage point increase in the cyclically adjusted primary balance. Staff's projection assumes only partial implementation of the planned capital spending, consistent with historical execution rates, and is more conservative than the authorities' estimates. Higher deficits are expected to be mostly financed through domestic debt issuance. Public debt is projected to remain around 40.5 percent of GDP over the medium-term (Figure 7 and Annex VII).

Consolidated State Budgetary Operations
(in percent of GDP, unless otherwise indicated)

	2021		2022	
	Budget	**Est.**	**Budget**	**Proj.**
Total revenue and grants	15.5	18.6	14.9	16.7
Tax revenue	12.2	14.1	11.8	12.6
of which: VAT	3.9	4.5	3.8	3.9
Grants and other revenues	3.3	4.6	3.2	4.0
Expenditure	20.1	22.1	19.3	21.3
Expense	14.5	16.1	13.3	15.2
Net acquisition of non-financial assets	5.6	6.0	5.6	6.1
Net lending (+)/borrowing (-)	**-4.6**	**-3.5**	**-4.4**	**-4.7**
Net incurrence of financial liabilities		2.0		4.6
Net acquisition of financial assets		1.4		0.1
Memo items:				
Primary Balance		-1.1		-3.5
Cyclically Adjusted PB (% potential GDP)		-1.5		-3.9
Public and publicly guaranteed debt		39.7		40.5

Sources: Vietnamese authorities and IMF staff projections.

18. Fiscal policy will need to strike a balance between providing temporary, targeted support and facilitating economic transformation.

- **Balancing broad-based support and targeted social assistance.** While temporary reduction of the VAT top rate on select products may support domestic consumption, the impact could be regressive, the measure may be difficult to reverse, and efficacy will depend

on the pass-through to consumers.[16] The temporary cut in the environmental protection tax (0.3 percent of GDP) in the wake of the Ukraine war can limit the rise in domestic oil prices, but is a second-best option to targeted cash transfers—the timeline and extent of the cut could be reviewed if oil prices normalize faster than expected. Low income households would benefit from greater automaticity in benefit scale-up and coverage extension of social safety nets to informal workers (Annex VIII).

- **Targeting vulnerable but viable firms.** Measures such as tax deferrals (1.6 percent of GDP) could help cushion the pandemic impact on firms, but support should be increasingly steered to the most vulnerable yet viable firms. The interest rate subsidy in the PRD (0.5 percent of GDP) may lower borrowing costs. However, limiting eligibility to distressed but viable firms, and using targeted benefits (e.g., grants to cover selected operational costs) for hard-hit SMEs would have been preferable than a blanket measure that may be exhausted by a few large firms with easy access to credit.
- **Facilitating labor reallocation and reintegration.** Spending on housing support, childcare facilities, as well as vocational training and job search assistance in the PRD (0.6 percent of GDP) is welcome to help bolster the labor market recovery. Strengthening active labor market policies, including reskilling and training, could help ensure faster reengagement of workers and address underemployment.

19. Fiscal policies should be agile given fluid economic conditions. If the recovery turns out to be faster than expected, buffers should be rebuilt more rapidly by saving the revenue windfall and, possibly, under-executing the budget. In such a scenario, a less accommodative fiscal stance would also help keep emerging inflationary pressures in check. Conversely, if downside risks materialize, a more expeditious fiscal response is warranted, alongside greater flexibility to (re)allocate funds within the recovery package.

20. Longer-term spending priorities should promote more inclusive growth. Focus should be on achieving Sustainable Development Goals (SDGs), boosting resilience to climate change, and strengthening social safety nets.

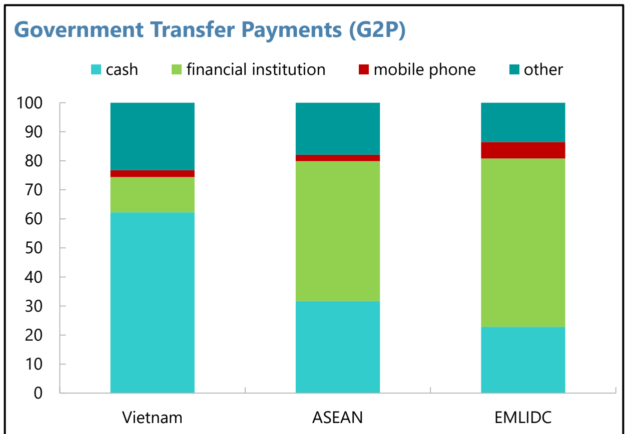
- **Building resilience to climate change.** Vietnam is among the countries most exposed to climate change, which could disproportionately impact the most vulnerable (Annex IX). In the absence of appropriate policy responses, 10-15 percent of the country's GDP could be lost by 2050.[17] Adaptation plans have been codified in national legislation and a series of strategies, but better integration with the budgetary process is essential.[18]

[16] The VAT structure in Vietnam has a range of exemptions, including for education, financial, medical services, and three rates: 0 percent (exported goods), 5 percent (some essential goods and services) and 10 percent on everything else. The PRD envisages a temporary cut in the top rate from 10 to 8 percent and a 20 percent reduction in the turnover tax for household businesses.

[17] World Bank, Vietnam Country Climate Development Report (forthcoming).

[18] Staff estimates total additional SDG spending needs for roads, electricity, and water subsectors at around 5 percent of GDP annually by 2030 (IMF WP 20/31). Higher adaptive infrastructure investments can boost the country's resilience against severe climate shocks, while improving growth-debt dynamics (IMF CR 21/42).

- **The crisis underscored the need to strengthen the social safety net.** Coverage gaps in social assistance programs can be reduced by creating a single registry of beneficiaries and strengthening administrative capacity (Annex XIII). The recent introduction of digital IDs is welcome, and the next step is to link them with socio-economic databases. Transfer payments are predominately cash-based, but electronic and mobile payments could improve the delivery of social programs and encourage greater financial inclusion, leveraging the high penetration of mobile phones to reach unbanked populations.



Sources: World Bank FINDEX Database and IMF staff calculations.

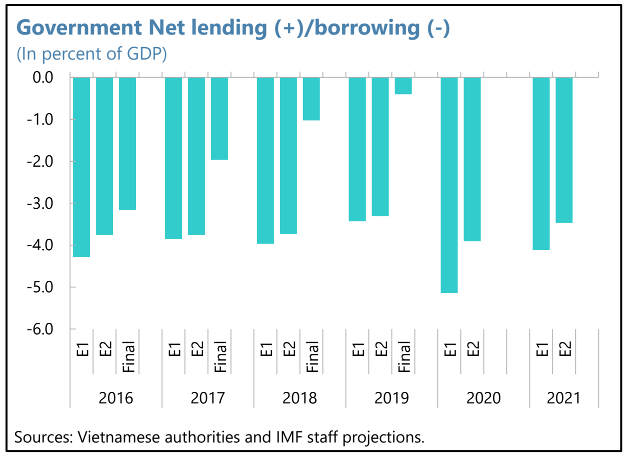
21. Revenue mobilization efforts are critical to accommodate higher development spending. Revenue intake has been declining and is low compared to peers (Figure 7).[19] Reversing this trend will require decisive efforts to phase out pandemic-related tax measures and implement staff's longstanding tax policy recommendations. Measures include reducing exemptions and rationalizing preferential regimes for FDI firms, broadening the VAT base, and raising environmental tax and excise duties. Introducing a unified property tax along with a land registry and differentiated stamp duties by investor and housing type could be a progressive way to raise revenue and help moderate fluctuations in real estate prices. The authorities are designing a tax reform strategy that would raise the revenue intake over the medium term. Recent reforms in tax collection and compliance (e.g., operationalizing the large tax-payer unit and compliance risk management programs) should continue in line with IMF technical assistance (TA) (Annex X) to cover e-tax services and improvements in the tax agency's organizational structure.

22. Strengthened fiscal frameworks would also help improve spending execution and safeguard fiscal sustainability.

- *Refine the public debt anchor*. In line with staff recommendations (IMF CR 21/42), a prudent debt anchor was introduced at 55 percent of GDP in 2021, along with revision of the statutory debt ceiling from 65 to 60 percent of GDP. Further refinement of escape clauses and corrective mechanisms would be useful to provide flexibility and promote compliance.
- *Upgrade the external-debt framework*. To avoid lumping different risk profiles, numerical ceilings should only be set on public (not private) FX external debt. Redefining external debt based on the residency criterion should also be considered and risks from external private debt should be managed through appropriate macroprudential measures.

[19] In 2019, GDP was revised upwards by 25.4 percent on average over 2010–17 owing to better measurement and coverage of formal businesses. The change mechanically lowered the tax-to-GDP ratio, strengthening the case for expanding revenue collection.

- *Strengthen public financial management frameworks*. Fiscal reporting should be strengthened, including by reducing data lags on final budgetary accounts, which complicates policymaking. Spending and revenue carryforwards should be limited further, in line with IMF TA, and extrabudgetary funds merged with the budget to reduce fiscal risks. Public investment management should be improved across the investment cycle in line with 2018 PIMA recommendations.



- *Pension system*. Pension reforms are needed to address unfunded pension liabilities and improve the coverage, adequacy, sustainability, and intra- and inter-generational fairness of pensions. The recent increase in the retirement age is welcome, but further parametric reforms are needed (IMF CR 19/235).

Authorities' Views

23. The authorities stressed the importance of prudent fiscal policies and medium-term reforms. They agreed that fiscal policy should remain agile, and that the PRD should be flexibly adjusted to the pace of the recovery, while improving execution and coordination across agencies. They stressed that the reduction of the environmental protection tax and VAT was intended to provide support to consumers in a timely manner and is strictly temporary. The authorities remain committed to medium-term fiscal targets. They are reviewing options to upgrade tax policies, including broadening tax bases, revisiting tax incentives, and considering modernizing property taxation and registries. Envisaged revisions to the State Budget law should reduce lags in fiscal reporting.

B. Monetary and Exchange Rate Policy

24. Monetary policy should be data dependent, forward looking, and increasingly vigilant of rising inflationary pressures.

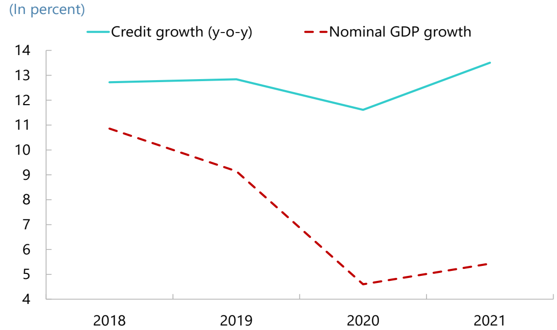
- *Baseline*. The SBV announced that it expects monetary policy to stay supportive of macroeconomic stability through 2022, based on projections of a gradual inflation increase.[20] This stance is appropriate considering the still-significant economic slack, low core inflation, and downside risks to growth. With the economy rebounding, additional stimulus in train, and global financial conditions tightening, capital flows and inflation dynamics should be closely monitored, and vigilance of the financial system strengthened.

[20] Estimates of Vietnam's natural real rate and monetary policy stance are complicated by the multi-pronged monetary policy toolkit and the use of both price and quantity-based instruments.

- *Risks.* If sustained inflation pressures emerge, the SBV should tighten its monetary policy stance and clearly communicate the underlying drivers. Macroprudential policies should be tightened if abundant liquidity results in increased risk taking by banks and frothy asset valuations, posing risks to financial stability.

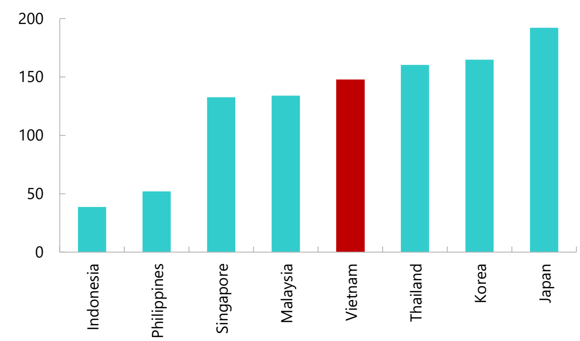
25. **The policy path should balance promoting the recovery and containing financial stability risks.** Nominal monetary aggregates and credit growth have outpaced nominal GDP growth significantly since the onset of the pandemic. Credit-to-GDP ratios at around 125 percent coupled with high borrower leverage, could also pose asset quality risks (Section C). Clear communication about the policy path, including regular assessments of credit growth targets—a key plank of the policy toolkit—, would help guide market participants and enhance monetary policy effectiveness.

Credit Growth and Nominal GDP Growth
(In percent)



Sources: Vietnamese authorities and IMF staff calculations.

Domestic Credit to Private Sector, 2020
(In percent of GDP)



Sources: World Bank

26. **Greater flexibility will allow the exchange rate to serve as a shock absorber.** The use of FX forward contacts and the appreciation of SBV's VND/USD buying rate, by about 2 percent over the year, is a welcome move toward greater two-way exchange rate flexibility, and in line with IMF recommendations.[21] FX reserves are broadly adequate at the current juncture. Going forward, the exchange rate should be allowed to act as a shock absorber, especially if the tightening of global financial conditions were premature from a domestic perspective. If monetary surprises from advanced economies disrupt capital inflows and intensify exchange rate depreciation pressures, monetary policy tightening along with FX interventions could be warranted to counter disorderly market conditions.

27. **Modernization of the monetary policy framework should continue apace for more effective transmission of interest rate policies.** Progress in developing the SBV's forecasting and analytical capacity, with the help from the IMF Forecasting and Policy Analysis System (FPAS) TA, sets a solid foundation for continued modernization of the SBV's monetary policy framework.

[21] The SBV replaced FX spot interventions with 6-month forward purchase contracts in 2021Q2 and introduced 3-month forward selling contracts in early 2022 after a short period of spot purchases.

Credit growth ceilings (both aggregate and bank-by-bank) and short-term deposit and lending-rate caps for priority sectors should be gradually relaxed to strengthen market-based pricing, and the macroprudential toolkit commensurately strengthened (see Section C). These actions, together with greater two-way exchange rate flexibility and the adoption of tools for mopping market liquidity (including a deposit facility), would strengthen monetary policy transmission.

Authorities' views

28. The SBV stressed the need to closely monitor inflationary pressures and to increasingly focus on their price stability objective. The SBV agreed that rising inflationary risks from external factors require vigilance, and that monetary policy should be agile to contain inflation and ensure macroeconomic stability. The authorities agreed with staff that ample liquidity and rapid credit growth need to be closely monitored to dampen macro-financial risks. They noted that a move towards more exchange rate flexibility is desirable in the medium and long term, but emphasized that adjustments and changes in the management framework must be carefully and prudently considered and implemented in a gradual manner.

C. Financial Sector Policies

29. Relaxation of loan classification and provisioning rules should be unwound. Forbearance on loan classification standards and provisioning rules in the early phases of the pandemic helped credit flows from seizing up. However, their continuation contributes to the delay in the recognition of problem assets and could exacerbate credit misallocation and excessive risk taking. With the economic recovery in train and the reported share of impaired loans improving (Figure 6), regulatory forbearance on loan classification should not be extended beyond June 2022. The SBV should consider accelerating provisioning for restructured loans ahead of schedule.[22] In tandem, mechanisms for corporate restructuring and resolution should be further strengthened and simplified (IMF CR 21/42). Prudential regulation should be used to contain excessive leverage by households and corporates and support proper risk-pricing.

30. Enhancing banking system resilience is essential for supporting medium-term growth. Given the level of impaired loans and increased exposure and lending concentration of banks to certain sectors and borrower groups, supervisors should carefully assess the adequacy of banks' capitalization to absorb potential losses and—if necessary—require banks to submit credible restoration plans. Focus should be on both overall levels of NPLs and sectoral breakdowns, including restructured loans, provisions, and impact on bank profitability and capital without forbearance. Intensified supervision is warranted for banks with riskier profiles, especially SOCBs where restructured loans increased and capital positions are weaker.[23] The SBV should closely monitor banks' plans for Basel II adoption, as this is key to enhance loss-absorbing capacity and align reporting and provisioning of NPLs with international standards. To facilitate

[22] Circular 03/2021 by the SBV required banks to begin provisioning for restructured loans that would have been downgraded had it not been for the classification forbearance. Banks had to set aside 30 percent of the required provisions by end-2021 and raise this proportion to 60 percent by end-2022 and 100 percent by end-2023.

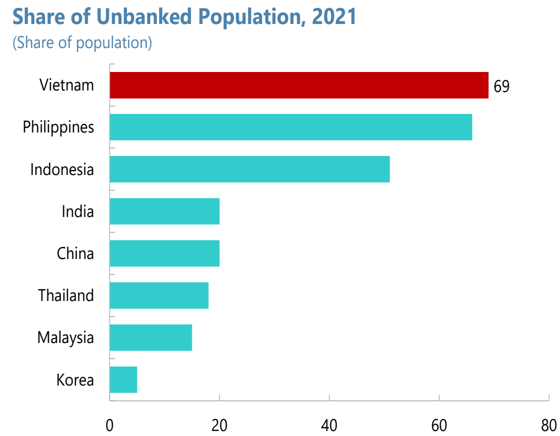
[23] An IMF Financial Sector Stability Review (FSSR) is underway to identify macro-financial vulnerabilities and evaluate gaps and weakness in the financial stability framework, with a view to developing a well-sequenced roadmap supported by further targeted TA to assist with the implementation of financial sector reforms.

capital raising, consideration should be given to increase foreign ownership limits and reduce state ownership of SOCBs.

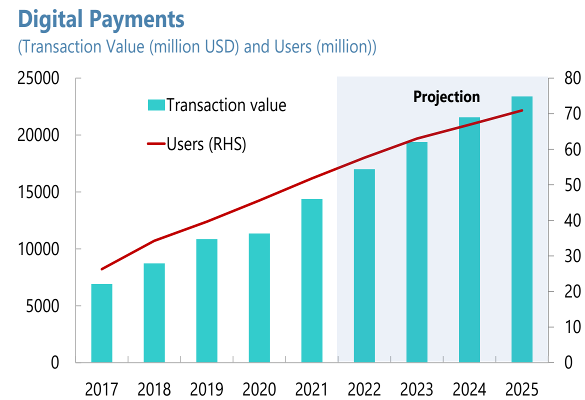
31. A strengthened macroprudential framework will help safeguard financial stability. In recent years, the macroprudential toolkit was expanded, with the adoption of sectoral concentration limits and a more careful review of lending to riskier market segments (e.g., selected corporate bonds, real estate, and securities markets). A gradual tightening of macroprudential policies could be considered to avoid a disorderly adjustment down the road. To this end, the SBV should continue developing its macroprudential policy, and improve the institutional framework and data quality, as per IMF TA. Consideration should be given to introducing a countercyclical capital buffer or a capital conservation buffer, setting limits on the loan-to-value and debt-service-to-income ratios, and adjusting risks weights, including to address any emerging vulnerabilities in the property sector.

32. The authorities appropriately consider deepening capital markets, but risks should be managed. The corporate bond market is growing rapidly, but private placements dominate public issuances. The government is considering a Securities Market Development Strategy for the period 2021-2030 to deepen capital markets and is revising regulations on corporate bonds. Encouraging the adoption of public issuance, developing a credit rating agency, and strengthening disclosure requirements for private placements would enhance transparency and strengthen investor confidence. To strengthen credibility, securities legislation and regulations should be appropriately enforced.

33. Efforts to harness the digital transformation in the financial sector in an inclusive manner are welcome and should be coupled with appropriate legislation. Vietnam performs poorly relative to its peers by traditional measures of financial inclusion, with a significant unbanked population for whom a cashless mobile payment solution is currently being piloted. Fintech firms are growing rapidly in areas such as digital banking and digital payments as well as peer-to-peer lending, with newly-introduced eKYC solutions also facilitating access to bank accounts. While fintech's economic footprint remains small, care should be taken to ensure that financial, operational, and market integrity, consumer and investor protection, and financial stability are not impaired.



Sources: Statista



Sources: Statista
Note: Digital payments include payments for products and services which are made over the Internet as well as mobile payments at point-of-sale (POS) via smartphone applications; it only includes consumer transactions. Projections by Statista Market forecast.

Authorities' views

34. **The authorities shared staff's views on mounting financial sector risks and the need to effectively address them as priority.** The SBV welcomed the proposals to accelerate provisioning as the recovery is firming up. The SBV also agreed on mounting risks in selected market segments such as real estate and corporate bonds, and the need to strengthen market surveillance, banking supervision, and the general legal and institutional framework to tackle nonperforming assets effectively. To deal with the current stock of impaired assets, the authorities prolonged Resolution 42—which provides temporary extraordinary powers to banks and the Vietnam Asset Management Company—until end-2023. The authorities acknowledged the need to build-up capital buffers in weak banks, further develop the macroprudential framework, and strengthen capital markets. They highlighted continuous progress in promoting financial inclusion while developing the regulatory framework for Fintech.

D. Macro-Structural Policies

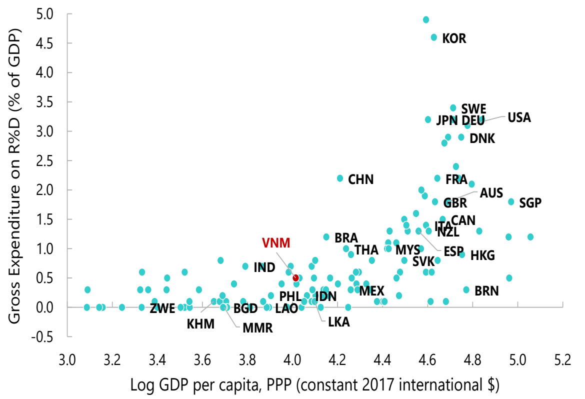
35. **Vietnam's development strategy requires an upgrade to meet the authorities' aspirations of sustained, inclusive, and green growth.** Even before the pandemic, pervasive economic dualism— across firms, sectors, and workers—held back productivity and hindered an efficient allocation of resources. The pandemic exacerbated these trends. The wide-ranging reforms in the PRD, particularly on labor, training, innovation, and business climate are steps in the right direction. Medium-term growth prospects will hinge critically on decisive reform implementation.

36. **Improvements in the business climate can spur formalization, technology diffusion, and productivity growth.** Vietnam is an increasingly significant participant in GVCs for high-tech products and spending on R&D and patents produced are at levels consistent with the country's per capita income (Annex XII). However, Vietnamese firms remain far from the frontier in their adoption of new technologies—with widespread productivity dispersion across firms—

and a large fraction of household businesses remain informal.[24] Incorporating firm innovation and technology incubation in the PRD is the right step to tackle these issues. Going forward, creating a level playing field for finance and land access, simplifying complex licensing and permit requirements, and adjusting regulations that inhibit the expansion of SMEs and young firms would foster firm formalization, technology diffusion, and narrow productivity gaps. The pandemic has also been accompanied by a rise in the use of digital platforms and e-commerce (Annex IV). Strengthening the adoption of digital technologies (especially by SMEs) could foster future productivity gains.

Gross Expenditure on R&D

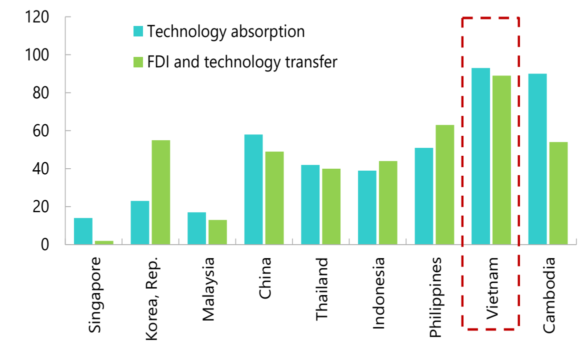
(In percent share of nominal GDP; log of constant 2017 int. dollars (x-axis))



Sources: WIPO, Global Innovation Index 2021; IMF, World Economic Outlook January 2022.

Technology Absorption and Transfer Index

(Lower = better)



Note: This is based on the ranking of 137 countries on the respective areas.

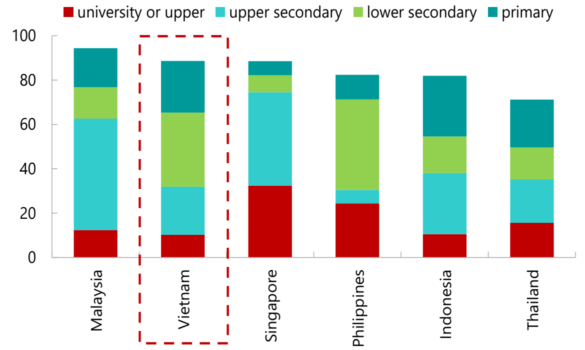
Sources: The Global Competitiveness Index 2017-2018, World Economic Forum.

37. **Further efforts are needed to improve the quality of the labor force and reduce skill mismatches.** Vietnam has made notable progress in the universalization of primary education, but retention rates drop significantly along the education ladder.[25] University-level and vocational-technical skills are under-supplied, and on-the-job skill acquisition does not fill the gap, as few firms provide formal training. Skill mismatches are particularly pronounced for low-skilled and informal workers, reinforcing labor duality. In the near-term, in addition to policies envisaged under the PRD, active labor market policies should facilitate labor reallocation toward expanding sectors, and facilitate upskilling and reskilling, particularly in digital skills. Over time, better linking education, training, and skill demand will help lift labor productivity.

[24] There are currently over 800,000 formal enterprises, compared to a 5.2 million household businesses operating informally in Vietnam.

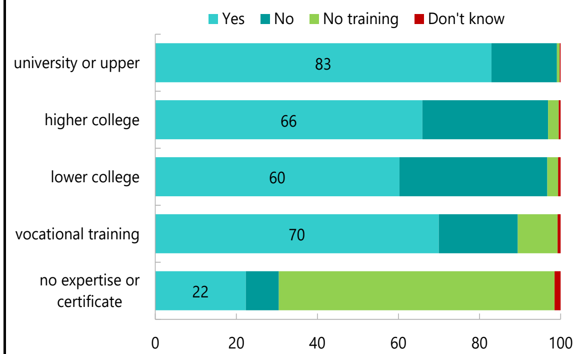
[25] Low enrollment rates in lower and upper secondary school are reflected in the high labor force participation rate, which is around 10 percentage points higher than peers.

Education Attainment in Selected ASEAN Countries
(In percent, share of population aged 25 or over in 2019)



Sources: World Development Indicators and IMF staff calculations.

Skill Mismatch in Vietnam
(In percent, question on whether the current job fits with worker's training/learning)



Sources: GSO and IMF staff calculations.

38. **Policies that better balance growth and equity objectives can more effectively support the recovery and promote long-term prospects.** Vietnam entered the crisis with lower inequality compared to its regional peers and a notable record on poverty reduction. The pandemic inevitably widened inequality, with lower income households, informal workers, and SMEs hit the hardest; while, at the same time, booming asset prices disproportionately benefit the wealthy. In addition to a better targeting of fiscal and credit support to vulnerable groups, improving the progressivity of the tax system (e.g., by introducing a property tax), stepping up public social spending, as well as policies to improve housing affordability (including by reducing supply bottlenecks) could be considered to reduce inequality.

39. **Efforts to green the economy are welcome and should be supported by robust carbon pricing.** Despite an increased use of renewables, coal remains the mainstay of the power sector and is the largest contributor to the rising greenhouse gas emissions. Vietnam recently pledged to achieve carbon neutrality by 2050. Nonetheless, assumptions underlying its 2030 environmental targets need to be updated, and implementation details, including the role of carbon pricing in driving decarbonization, are yet to be defined (Annex XIII). In this regard, the planned pilot of an emissions trading system in 2025 is welcome, but additional fiscal and regulatory tools will be needed.

40. **Efforts to improve governance by strengthening the anti-corruption framework and enforcement continue, but corruption remains a serious and complex challenge.**[26] The authorities are revising several economic laws, promoting e-government, and reducing regulations and licensing requirements (Annex IV). The recent Mutual Evaluation of Vietnam will inform the prioritization of policies to strengthen the anti-money laundering and counter-financing of terrorism (AML/CFT) framework. Recent amendments, which mandate the creation of databases on asset and income control and bank accounts are welcome. The framework should continue to be strengthened in line with international standards, including by improving

[26] A decree on assets and income declaration of people with position and power is being implemented, with close to 1.3 million people having declared their assets and income to date.

financial sector supervision and preventive measures (e.g., customer due diligence), money laundering investigations and prosecution, and transparency of legal arrangements, including to ensure durable access to international financial markets.

41. Data provision is broadly adequate for surveillance, but data frameworks could be strengthened. Priority should be given to improving the compilation and accuracy of the budget estimates and the timeliness of final budget accounts. Publication of a property price index (with help from IMF TA) would help to better assess financial risks. Compilation of an international investment position (with IMF TA) and external debt statistics would improve the assessment of external risks.

Authorities' View

42. The authorities affirmed their climate commitments and noted the importance of structural reforms for boosting productivity and increasing formalization. Major measures include investments in innovation and digitalization, as well as recent efforts to improve labor skills and resolve skill mismatches. Authorities see the Labor Code, implemented in 2021, as an important tool to reduce worker informality. Firm formalization is expected to increase with the revision of the Enterprise Law currently under consideration. Simplification of administrative procedures, including land management, will continue. Revisions to the AML/CFT law are being discussed to address shortcomings identified in the Mutual Evaluation, with the help of IMF TA. The authorities expect that higher public investment in renewable energy under the PRD will catalyze private investment in green energy. An update to their nationally determined contributions is envisaged to incorporate newly-announced climate commitments.

STAFF APPRAISAL

43. Vietnam has successfully managed the transition to living with COVID-19 on the back of an impressive vaccination drive. Growth is expected to strengthen this year as the economy reopens and the PRD spurs infrastructure investment. Inflation is expected to rise close to the SBV's target amid commodity price pressures and continued supply chain disruptions. However, the recovery has been uneven, and the outlook remains highly uncertain, contingent on geopolitical developments, the slowdown in China, the global trajectory of the pandemic, and rising domestic financial market vulnerabilities.

44. Policymaking should be agile, and the size and composition of policy support proactively adjusted if risks materialize. With output below potential and available fiscal space, the policy mix should remain supportive, but elevated inflation pressures preclude additional monetary stimulus. Tackling emerging real estate vulnerabilities, resolving problem loans, and reversing the trend in asset quality deterioration are key priorities to avoid banking system strains.

45. Fiscal policy should be nimble and serve as the first line of defense against downside growth risks. The authorities should flexibly calibrate the fiscal stance to the pace of the recovery, while improving execution. Fiscal policy should provide temporary and targeted support for an inclusive recovery and facilitate economic transformation. Social assistance should

be strengthened by improving coverage and delivery. Over the medium-term, revenue mobilization is critical to rebuild fiscal buffers, boost climate resilience, and achieve the SDGs. Efforts to upgrade fiscal frameworks will help improve spending execution and safeguard fiscal sustainability.

46. **Monetary policy should be data dependent, forward-looking, and increasingly vigilant of inflationary risks.** The SBV should stand ready to tighten its monetary policy stance in the face of sustained inflation pressures, and clearly communicate the underlying drivers to avoid de-anchoring inflation expectations. Continued efforts to modernize the monetary policy framework and allow greater two-way exchange rate flexibility will help strengthen the conventional transmission mechanism of interest rate policies.

47. **Loan restructuring and regulatory forbearance should be unwound, and financial stability risks closely monitored.** Ample liquidity and rapid credit growth need to be closely monitored to dampen macro-financial risks. Strengthened supervision together with timely efforts to address problem loans and bolster regulatory and supervisory frameworks will help support proper risk-pricing, contain excessive household and corporate leverage, and address emerging financial stability risks. The insolvency and institutional framework should be strengthened to facilitate bad debt resolution. Raising capital in weaker banks and enlarging the macroprudential toolkit to contend with rising real estate risks will also help the system weather future shocks. Efforts to deepen capital markets and harness the digital transformation in the financial sector should be coupled with efforts to bolster legal, regulatory and supervisory frameworks. Shortcomings in the AML/CFT framework should be swiftly addressed.

48. **The external position is stronger than warranted by economic fundamentals and desired policy settings.** This assessment is subject to uncertainty given measurement issues, which could be even more significant in a pandemic year.

49. **Decisive structural reforms are needed to mitigate pandemic scars and support inclusive growth.** Priority should be given to simplifying complex licensing and permit requirements, strengthening anti-corruption frameworks, and encouraging firm formalization. Fostering the adoption of digital technologies, upgrading labor skills, and reducing skill mismatches will boost productivity. Improving the progressivity of the tax system, stepping up social spending, and ensuring housing affordability will allow for a more inclusive society. Efforts to reduce data gaps should continue.

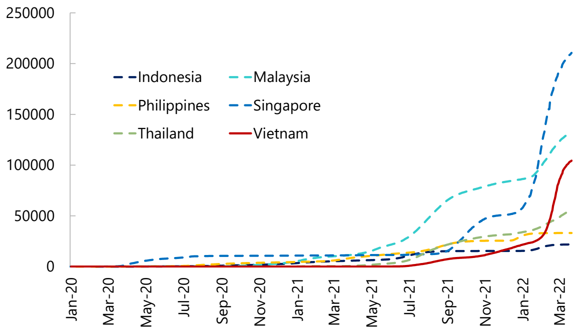
50. **Efforts to green the economy are welcome and should be backed by concrete actions.** Translating ambitious plans into action will imply better integration with yearly and medium-term budgetary processes and clearer identification of financing sources. Decisive efforts to introduce an emissions trading system along with a focus on cleaner energy sources are needed to set Vietnam's long-term growth model on a greener footing.

51. **It is recommended that the next Article IV consultation be held on the standard 12-month cycle.**

Figure 1. COVID-19 Developments

Vietnam experienced two large COVID-19 waves in 2021Q3 (delta variant) and in 2022Q1 (omicron variant).

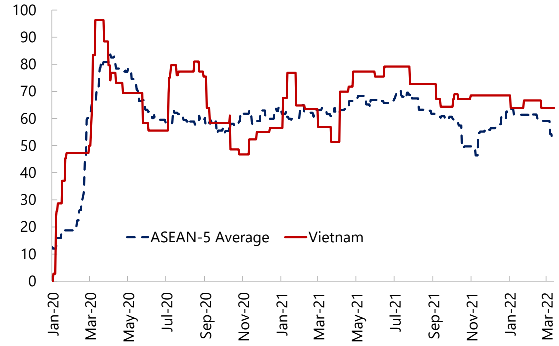
Total Cases
(Per million people)



Sources: Our World in Data

The delta wave prompted the reintroduction of lockdowns, the omicron wave did not …

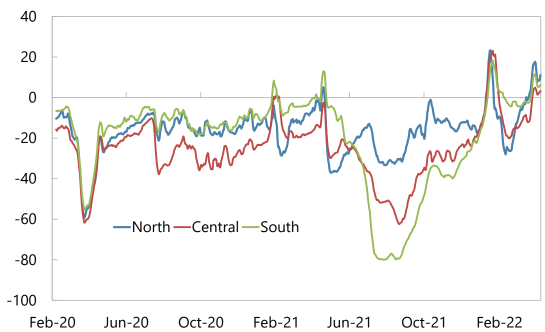
Policy Stringency Index



Sources: Our World in Data

… with significantly different impacts on mobility and economic activity.

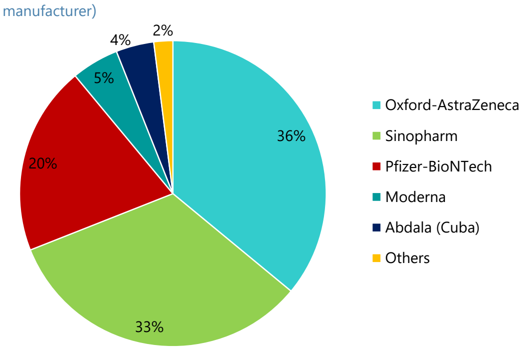
Google Mobility Index
(simple-weighted average, 7-day MA)



Sources: Google COVID-19 Community Mobility Report and IMF staff calculations

Opening up was made possible by ramped-up vaccine procurement…

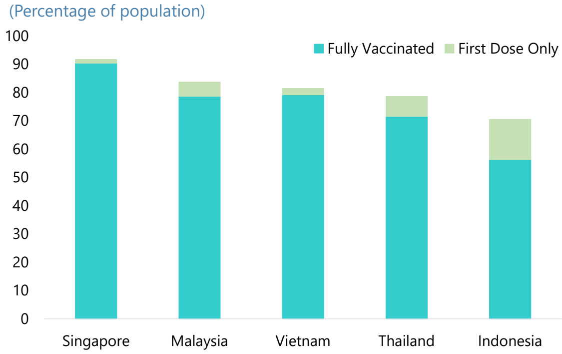
Vaccine Supply
(By manufacturer)



Source: WHO COVID-19 in Vietnam Situation Report 68, November 2021

… and a mass vaccination campaign.

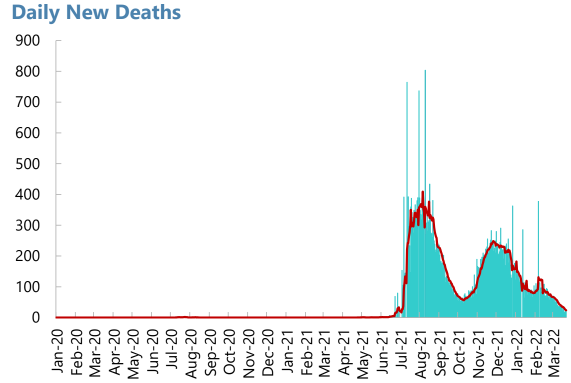
Total Vaccinations
(Percentage of population)



Sources: Our World in Data

The live-with-Covid strategy did not translate into higher hospitalizations and deaths.

Daily New Deaths

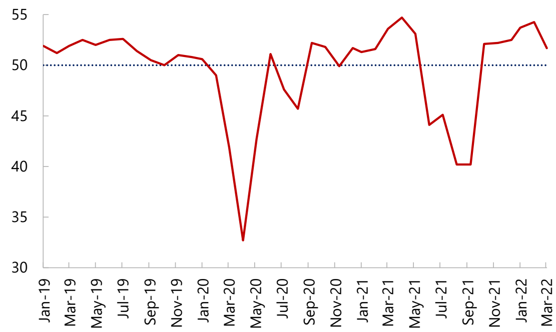


Sources: Our World in Data

Figure 2. Recent Economic Developments

After a severe contraction in 2021-Q3, there are signs of economic recovery.

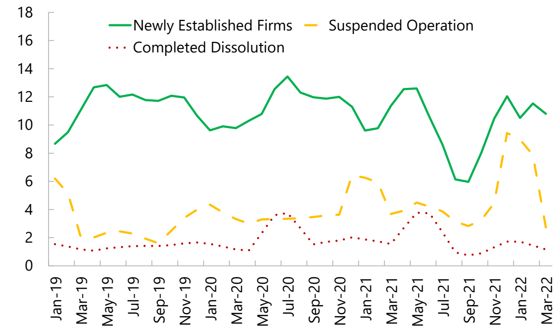
Purchasing Manufacturing Index
(0-100, index)



Sources: Haver, IMF staff calculation.

New firm entry is trending up.

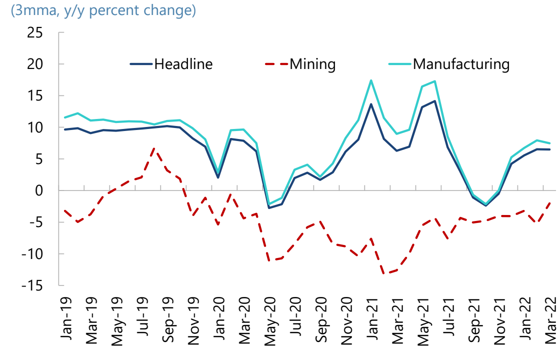
Entry and Exit of Firms
(Number of enterprises (3mma), in thousands)



Sources: Vietnamese authorities.

Industrial production is picking up…

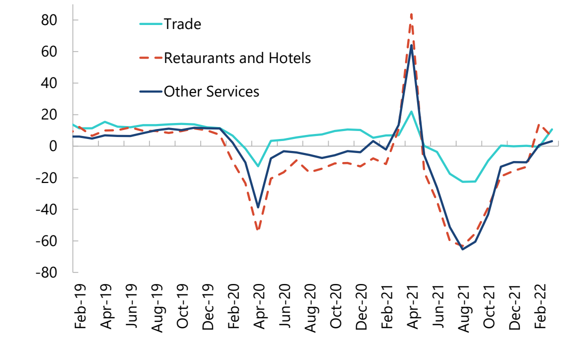
Index of Industrial Production (IIP)
(3mma, y/y percent change)



Sources: Vietnamese authorities.

…as are retail sales.

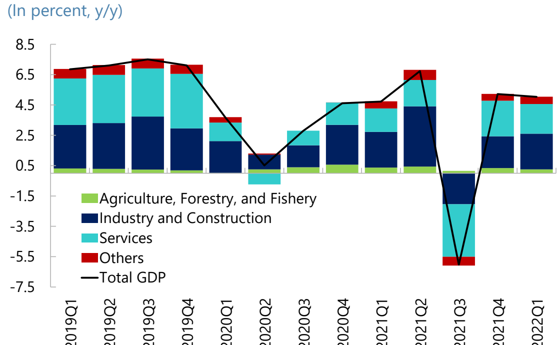
Retail Sales of Trade Goods and Services
(In percent, nominal, y/y)



Sources: Vietnamese authorities, IMF staff calculations.

Industry has been the main driver of growth, with services gradually picking up.

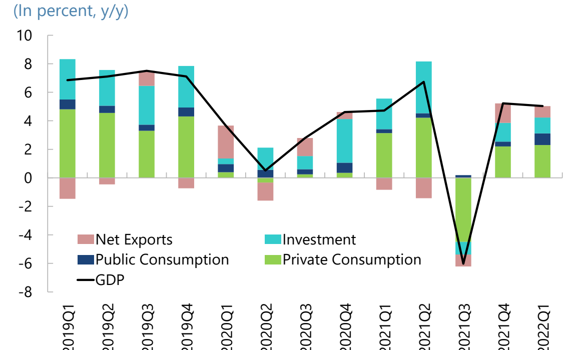
Main Drivers to Growth, by Economic Activity
(In percent, y/y)



Sources: Vietnamese authorities, IMF staff calculations.

Private consumption is still lagging the overall recovery.

Main Drivers to Growth, by Expenditure
(In percent, y/y)



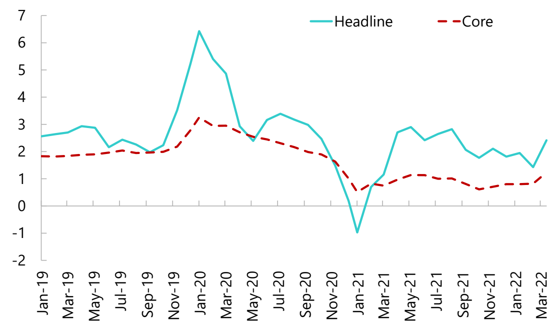
Sources: Vietnamese authorities, IMF staff calculations.

Figure 3. Inflation, Wages, and Global Supply Chain Disruptions

Headline and core inflation have been subdued so far…

Headline and Core Inflation

(In percent, y/y)

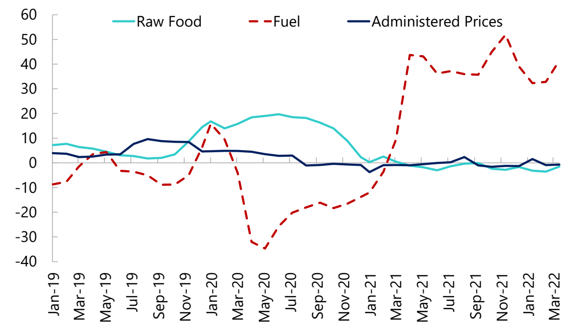


Sources: Vietnamese authorities and IMF staff calculations.

… due to muted food and administered prices, …

Inflation Non-core Components

(In percent, y/y)

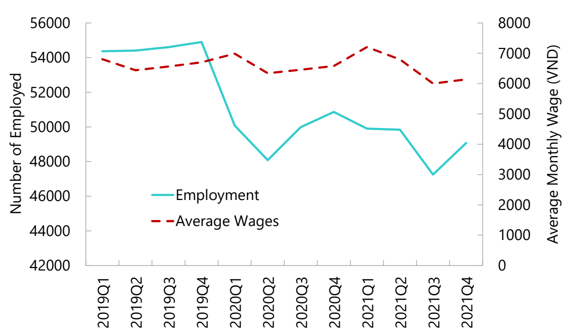


Sources: Vietnamese authorities and IMF staff calculations.

… and economic slack, seen in lower average wages and employment.

Average Wages and Employment

(In thousands)

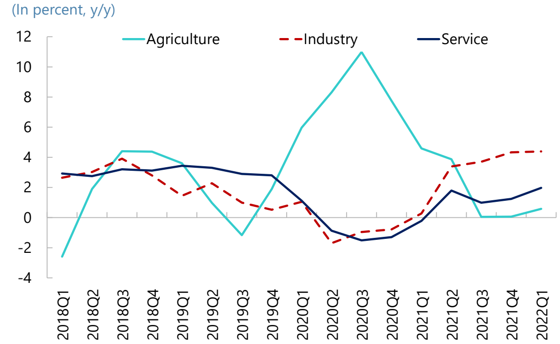


Sources: Vietnamese authorities and IMF staff calculations.

However, producer prices are edging up…

Producer Price Inflation

(In percent, y/y)

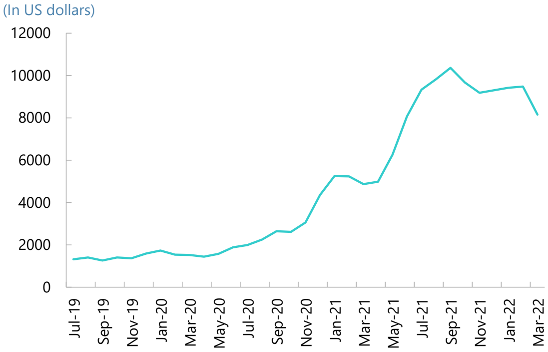


Sources: Vietnamese authorities and IMF staff calculations.

… reflecting high shipping costs…

Global Container Freight Rate

(In US dollars)

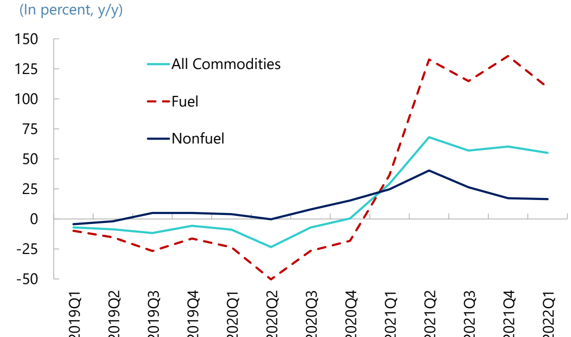


Sources: Statista

… and high commodity prices.

Commodity Price Inflation

(In percent, y/y)



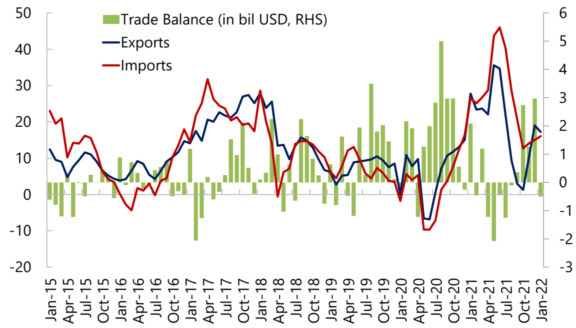
Sources: IMF World Economic Outlook Database

Figure 4. External Sector

The trade balance narrowed sharply in 2021.

Trade Performance

(3mma, y/y, percent)

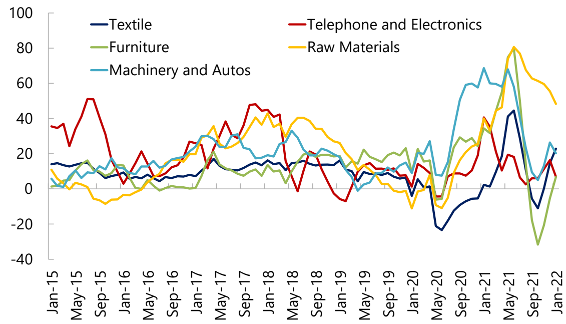


Sources: Vietnamese Authorities, IMF Staff Calculations

Low-skilled manufacturing exports experienced the sharpest slowdown.

Trade Performance by Commodities

(3mma, y/y, in percent)

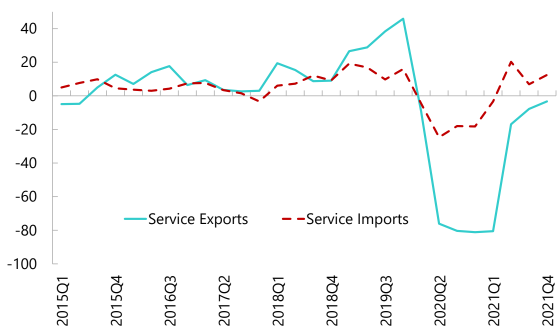


Sources: Vietnamese Authorities, IMF Staff Calculations

Service trade remained sluggish.

Service Trade

(In percent, y/y)

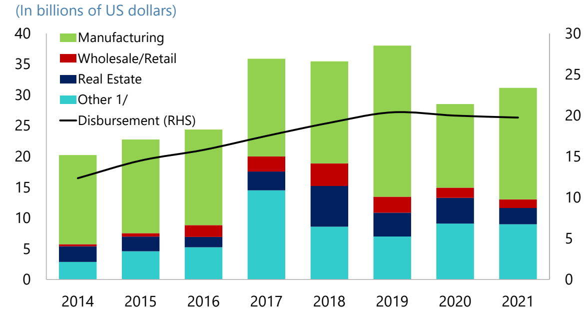


Sources: Vietnamese authorities, IMF staff calculations.

FDI disbursements remained broadly unchanged.

FDI Commitments and Disbursements

(In billions of US dollars)



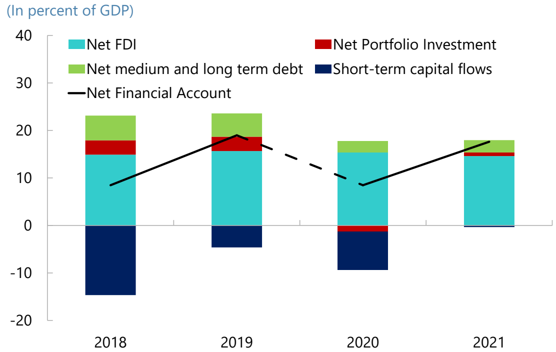
Source: Vietnamese authorities; and IMF staff calculations.

1/ Construction, Hotel and Restaurants, Mining, Agricultural, Forestry and Fishery, Electricity, Gas and AC production and other.

Portfolio investments and other short-term flows increased.

Financial Account

(In percent of GDP)

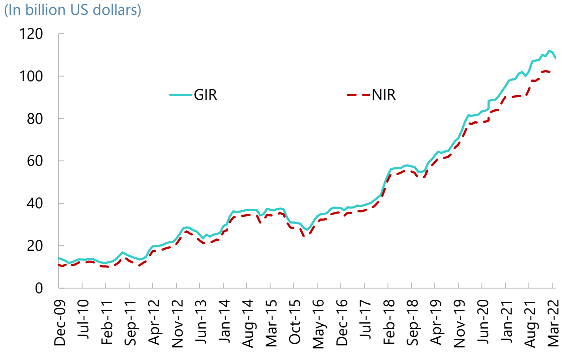


Sources: Vietnamese Authorities, IMF Staff Calculations

Reserves continued to increase, before flattening recently.

International Reserves

(In billion US dollars)

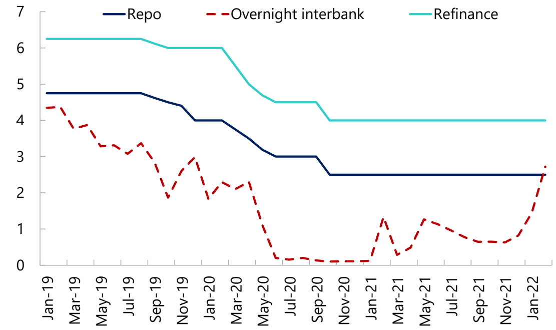


Sources: Vietnamese authorities

Figure 5. Monetary Sector

The monetary policy stance remains accommodative …

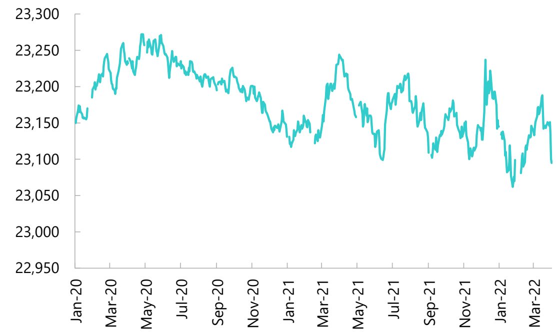
Policy Interest Rates
(Monthly averages)



Sources: Vietnamese authorities and IMF staff calculations.

…with greater 2-way exchange rate flexibility.

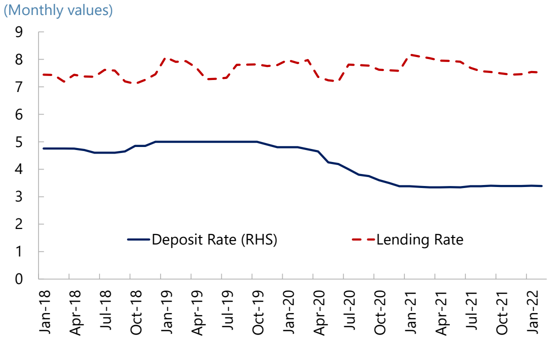
Official Exchange Rate
(Daily values, VND/USD)



Sources: Vietnamese authorities and IMF staff calculations.

Lending and, especially, deposit rates have fallen.

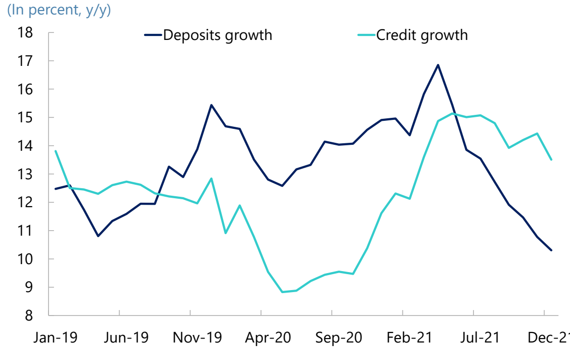
Lending and Deposit Rates
(Monthly values)



Sources: International Financial Statistics, Vietnamese authorities and IMF staff calculations.

Credit growth picked up strongly while deposit growth declined.

Credit and Deposit Growth
(In percent, y/y)



Sources: Vietnamese authorities and IMF staff calculations.

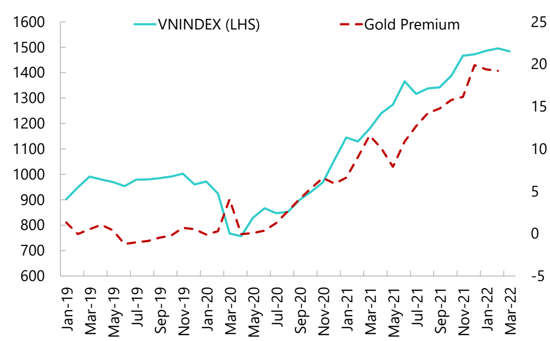
Credit growth was concentrated in trade, other activities (including real estate), and industry.

Credit Growth by Sector
(2021M12 y/y growth, in percent)

Sources: Vietnamese authorities and IMF staff calculations.

Abundant liquidity translated into buoyant stock valuations and rising gold premium.

Stock Market Indices

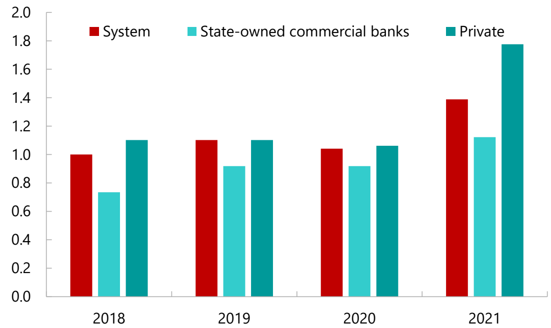


Sources: Vietnamese authorities and IMF staff calculations.

Figure 6. Financial Sector

Bank profitability increased in 2021, driven by strong credit growth and net interest margins.

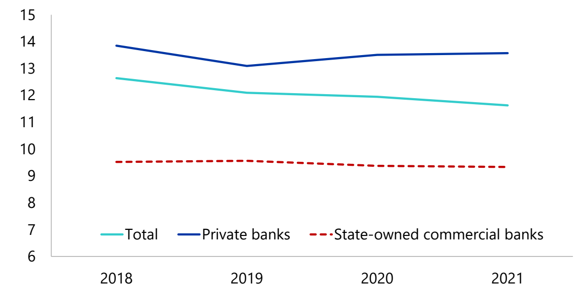
Bank Profitability
(ROA in Q2; Index, System 2018Q2 = 1)



Sources: Haver Analytics and IMF staff calculations.

However, capital adequacy remains weak, especially in state-owned commercial banks.

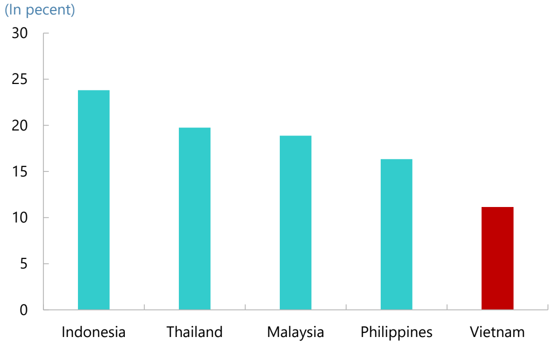
Capital Adequacy Ratios
(In Percent)



Sources: Financial Soundness Indicators (FSI) and authority's data. For 2021, Q2 data is used.

...particularly compared to ASEAN peers.

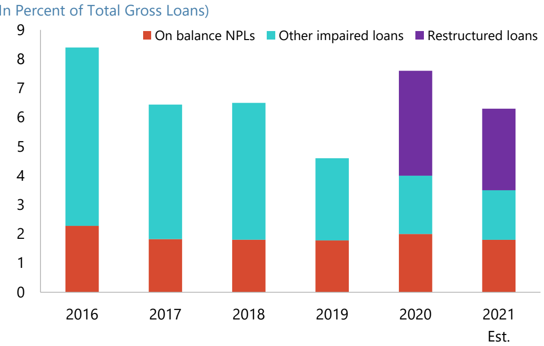
Regional Comparison: Capital adequacy ratio in 2021
(In pecent)



Source: FSI, data is as of 2021 Q2 or latest avaialbe.

Problem loans have increased.

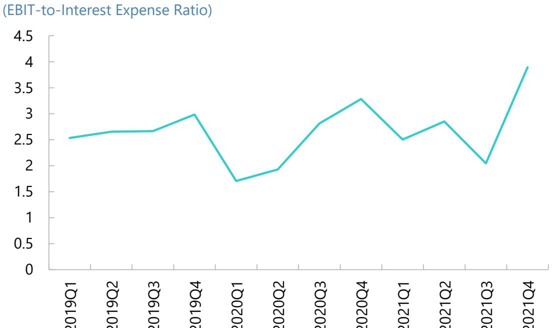
Impaired Loans
(In Percent of Total Gross Loans)



Sources: Financial Soundness Indicators (FSI). 2021 data is staff estimate.

Larger firms remained financially healthy...

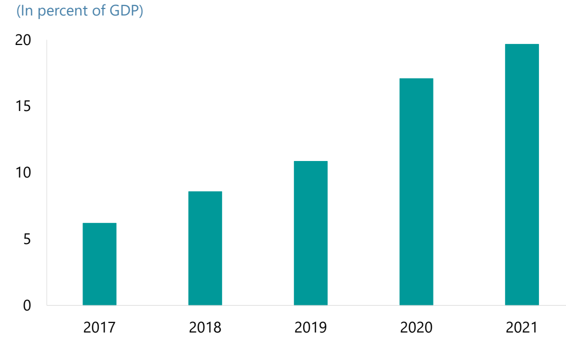
Interest Coverage Ratio of Large Firms
(EBIT-to-Interest Expense Ratio)



Sources: Capital IQ and IMF staff calculations
Note: Not all firms in the sample have reported data in 2021Q4 yet

...while corporate debt tripled its footprint.

Size of Corporate Bond Market
(In percent of GDP)

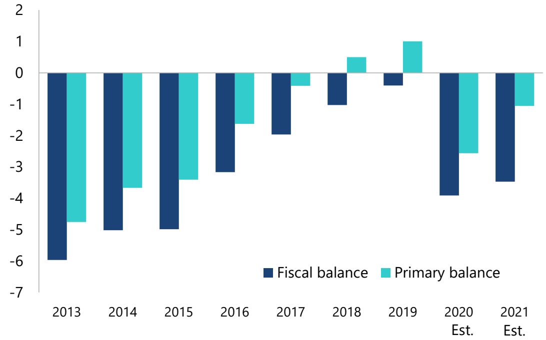


Sources: ADB, authority's data for local curreny bond and IMF staff estimate for 2021.

Figure 7. Fiscal Sector

The fiscal position was expansionary in 2020-21…

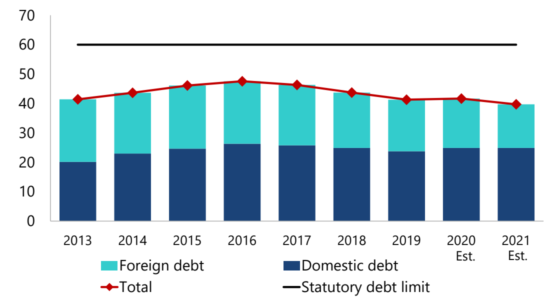
Fiscal Balance
(In percent of GDP)



Sources: Vietnamese authorities; and IMF staff calculations.

…contributing to a modest uptick in PPG debt.

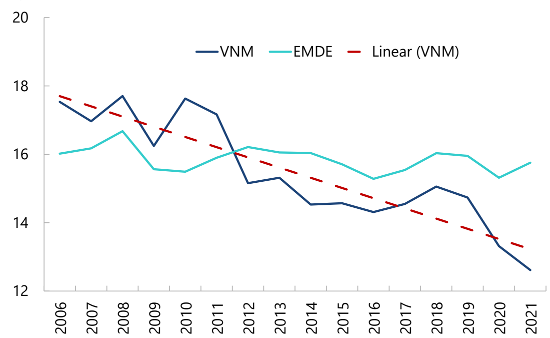
Public and Publicly Guaranteed Debt
(In percent of GDP)



Sources: Vietnamese authorities; and IMF staff calculations.
Note: The formal PPG debt ceiling was revised from 65 to 60 percent of GDP in 2021.

Tax revenues should be enhanced …

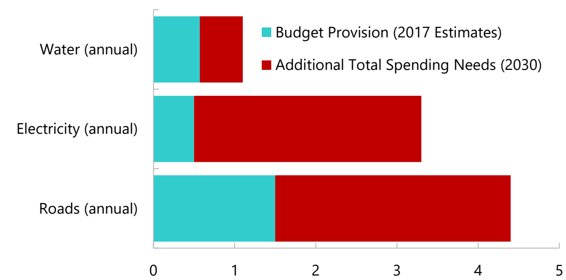
General Government Tax Revenue
(In percent of GDP)



Sources: Calculations based on 2022 April WEO.

…including to finance infrastructure needs.

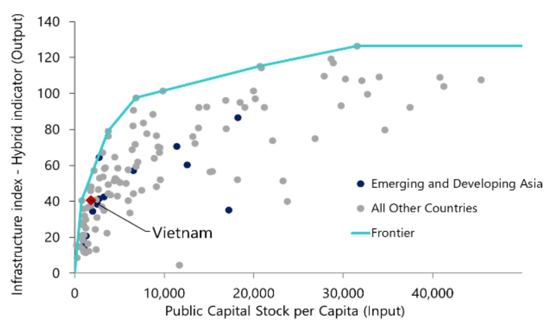
Spending Needs to Achieve Selected SDGs
(additional total spending, in percent of GDP)



Sources: Baum (IMF WP 2020/31).
Notes: Additional spending needs are based on current budget provisions above which spending would need to increase.

Reforms are needed to improve investment efficiency …

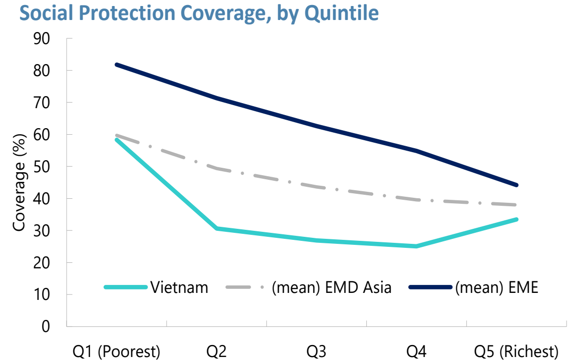
Public Investment Efficiency Frontier



Source: IMF (2015) "Making Public Investment More Efficient".
Note: The infrastructure hybrid index combines physical and survey-based indicators into a synthetic ind of the coverage and quality of infrastructure networks. The physical indicator combines data on the volume of economic and social infrastructure, while the survey-based indicator is based on the World Economic Forum's survey of business leader's impressions of the quality of key infrastructure services.

… and expand the coverage of social protection systems.

Social Protection Coverage, by Quintile



Sources: IMF FAD Social Protection & Labor - Assessment Tool (SPL-AT)

Table 1. Vietnam: Selected Economic Indicators, 2018–23 1/

	2018	2019	2020	2021	Projections 2022	2023
Output						
Real GDP (percent change)	7.2	7.2	2.9	2.6	6.0	7.2
Output Gap (percent of GDP)	-0.3	1.2	-0.3	-2.4	-2.1	-1.2
Prices (percent change)						
CPI (period average)	3.5	2.8	3.2	1.9	3.8	3.7
CPI (end of period)	3.0	5.2	0.2	1.8	3.9	3.5
Core inflation (end of period)	1.7	2.8	1.0	0.8	2.3	2.6
Saving and investment (in percent of GDP)						
Gross national saving	33.8	35.5	36.5	32.3	36.1	37.0
Private	30.0	31.2	34.5	29.6	35.6	36.5
Public	3.8	4.3	2.0	2.7	0.5	0.6
Gross investment	31.9	31.8	32.1	33.4	35.4	35.7
Private	26.4	26.4	25.3	27.4	29.3	29.5
Public	5.5	5.4	6.7	6.0	6.1	6.2
State budget finances (in percent of GDP) 2/						
Revenue and grants	19.5	19.6	18.5	18.6	16.7	16.8
Of which: Oil revenue	0.9	0.7	0.6	0.5	0.7	0.5
Expenditure	20.6	20.0	22.4	22.1	21.3	21.4
Expense	15.1	14.6	15.7	16.1	15.2	15.2
Net acquisition of nonfinancial assets	5.5	5.4	6.7	6.0	6.1	6.2
Net lending (+)/borrowing(-) 3/	-1.0	-0.4	-3.9	-3.5	-4.7	-4.7
Net lending /borrowing including EBFs	0.4	0.3	-2.8	-2.5	-3.8	-3.9
Public and publicly guaranteed debt (end of period)	43.7	41.3	41.7	39.7	40.5	40.8
Money and credit (percent change, end of period)						
Broad money (M2)	12.4	14.8	14.5	10.7	11.3	13.0
Credit to the economy	12.7	12.8	11.6	13.5	14.6	14.3
Balance of payments (in percent of GDP, unless otherwise indicated)						
Current account balance (including official transfers)	1.9	3.7	4.4	-1.0	0.7	1.3
Exports f.o.b.	80.4	80.6	82.4	91.8	92.9	91.5
Imports f.o.b.	74.9	74.1	73.5	87.0	86.3	84.0
Capital and financial account 4/	2.8	5.8	2.5	8.4	3.2	3.2
Gross international reserves (in billions of U.S. dollars) 5/	55.3	78.5	95.2	109.4	125.5	146.6
In months of prospective GNFS imports	2.5	3.5	3.4	3.5	3.6	3.8
Total external debt (end of period)	36.5	37.3	36.4	36.1	35.3	34.8
Nominal exchange rate (dong/U.S. dollar, end of period)	23,175	23,173	23,098	22,792	…	…
Real effective exchange rate (end of period)	127.5	129.4	124.3	…	…	…
Memorandum items (current prices):						
GDP (in billions of U.S. dollars)	303.1	327.9	342.9	366.2	408.4	462.4
Per capita GDP (in U.S. dollars)	3,202	3,398	3,521	3,725	4,116	4,619

Sources: Vietnamese authorities; and IMF staff estimates and projections.
1/ GDP was revised upwards by 25.4 percent on average over 2010–17 owing to better measurement and coverage of formal businesses.
2/ Follows the format of the *Government Finance Statistics Manual 2001*. Large EBFs are outside the state budget but inside the general government (revenue amounting to 6-7 percent of GDP).
3/ Excludes net lending of Vietnam Development Bank and revenue and expenditure of Vietnam Social Security.
4/ Incorporates a projection for negative errors and omissions going forward (i.e. unrecorded imports and short-term capital outfows).
5/ Excludes government deposits.

Table 2. Vietnam: Balance of Payments, 2017–2023

(In billions of U.S. dollars, unless otherwise indicated)

						Projections	
	2017	2018	2019	2020	2021	2022	2023
Current account balance	-1.7	5.8	12.2	15.1	-3.8	2.8	6.0
Trade balance	10.8	16.5	21.2	30.7	17.7	27.2	34.4
Of which: Oil balance	-3.7	-5.0	-3.6	-1.5	-2.1	-3.7	-3.4
Exports, f.o.b.	215.1	243.7	264.2	282.6	336.3	379.5	423.0
Imports, f.o.b.	204.3	227.2	243.0	251.9	318.6	352.3	388.6
Nonfactor services	-4.0	-3.8	-1.5	-10.3	-15.7	-17.4	-19.5
Receipts	13.1	14.8	19.9	7.6	3.7	5.2	7.8
Payments	17.1	18.6	21.4	17.9	19.4	22.6	27.3
Investment income	-17.0	-15.8	-16.8	-14.8	-16.1	-16.8	-18.6
Receipts	0.7	1.6	2.2	1.4	1.0	2.5	2.7
Payments	17.7	17.4	19.0	16.2	17.1	19.2	21.3
Transfers	8.5	8.9	9.2	9.5	10.3	9.8	9.8
Private (net)	8.0	8.3	8.7	8.9	9.6	9.2	9.3
Official (net)	0.5	0.5	0.6	0.6	0.7	0.5	0.4
Capital and financial account balance	20.0	8.5	19.0	8.5	30.6	13.2	15.0
Direct investment (net)	13.6	14.9	15.7	15.4	15.4	16.3	17.4
Of which: Foreign direct investment in Vietnam	14.1	15.5	16.1	15.8	15.7	16.6	17.8
Portfolio investment	2.1	3.0	3.0	-1.3	0.3	0.6	1.1
Medium- and long-term loans	4.4	5.2	4.9	2.4	2.8	2.3	2.4
Disbursements	13.7	13.0	13.0	11.5	15.2	15.9	16.7
Amortization	9.3	7.8	8.1	9.1	12.4	13.6	14.3
Short-term capital 1/	-0.1	-14.7	-4.6	-8.1	12.1	-5.9	-6.0
Change in net foreign assets	-6.4	-11.0	-5.2	-8.1	9.7	-6.9	-7.0
Of which: Commercial banks	-1.0	-4.7	-1.6	-5.5	10.5	-7.5	-7.6
Trade credit (net)	6.4	-3.3	0.3	0.0	2.6	1.0	1.1
Other short-term capital 1/	…	…	0.3	0.0	-0.2	-0.1	-0.1
Errors and omissions	-5.8	-8.2	-7.9	-6.9	-12.5	0.0	0.0
Memorandum items:							
Gross international reserves 2/	49.2	55.3	78.5	95.2	109.4	125.5	146.6
In months of prospective GNFS imports	2.4	2.5	3.5	3.4	3.5	3.6	3.8
Ratio to short term external debt (in %) on remaining maturity basis 2	635	682	861	770	805	879	997
Current account balance (in percent of GDP)	-0.6	1.9	3.7	4.4	-1.0	0.7	1.3
Export value (percent change)	21.8	13.3	8.4	7.0	19.0	12.8	11.5
Export value (in percent of GDP)	77.6	80.4	80.6	82.4	91.8	92.9	91.5
Import value (percent change)	23.4	11.2	7.0	3.7	26.5	10.6	10.3
External debt	108.0	110.0	122.6	125.5	133.2	145.1	159.9
In percent of GDP 3/	39.0	36.5	37.3	36.4	36.1	35.3	34.8
GDP	277.1	303.1	327.9	342.9	366.2	408.4	462.4

Sources: Vietnamese authorities; and IMF staff estimates and projections.

1/ Incorporates a projection for negative errors and omissions going forward (i.e. unrecorded imports and US dollar currency holdings by residents outside the formal financial sector).

2/ Excludes government deposits.

3/ Uses interbank exchange rate.

Table 3. Vietnam: Medium-Term Projections, 2018–2027

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
					Projections					
Output				(Percent change)						
Real GDP	7.2	7.2	2.9	2.6	6.0	7.2	7.0	6.9	6.8	6.7
Prices										
CPI (period average)	3.5	2.8	3.2	1.9	3.8	3.7	3.5	3.5	3.5	3.5
CPI (end of period)	3.0	5.2	0.2	1.8	3.9	3.5	3.5	3.5	3.5	3.5
GDP deflator	3.4	1.9	1.6	2.8	3.8	5.4	5.3	5.0	4.6	4.1
Saving and investment				(in percent of GDP, unles otherwise indicated)						
Gross national saving	33.8	35.5	36.5	32.3	36.1	37.0	37.1	37.2	37.1	37.5
Gross investment	31.9	31.8	32.1	33.4	35.4	35.7	36.1	36.6	37.0	37.5
Private investment	26.4	26.4	25.3	27.4	29.3	29.5	30.0	30.5	30.8	31.3
Public investment	5.5	5.4	6.7	6.0	6.1	6.2	6.1	6.1	6.2	6.2
State budget finances 1/										
Revenue and grants	19.5	19.6	18.5	18.6	16.7	16.8	16.9	17.1	17.4	17.7
Expenditure	20.6	20.0	22.4	22.1	21.3	21.4	21.3	21.2	21.2	21.1
Expense	15.1	14.6	15.7	16.1	15.2	15.2	15.2	15.1	15.0	14.9
Net acquisition of nonfinancial assets	5.5	5.4	6.7	6.0	6.1	6.2	6.1	6.1	6.2	6.2
Net lending (+)/borrowing(-) 2/	-1.0	-0.4	-3.9	-3.5	-4.7	-4.7	-4.4	-4.1	-3.9	-3.4
Net lending /borrowing including EBFs	0.4	0.3	-2.8	-2.5	-3.8	-2.3	-2.4	-1.4	-0.4	0.6
Non-oil primary balance	-0.4	0.3	-3.1	-1.5	-4.2	-4.1	-3.7	-3.3	-3.0	-2.5
Public and publicly guaranteed debt (end of period)	43.7	41.3	41.7	39.7	40.5	40.8	40.9	40.9	40.8	40.6
Balance of payments										
Current account balance	1.9	3.7	4.4	-1.0	0.7	1.3	1.0	0.6	0.1	0.0
Exports f.o.b.	80.4	80.6	82.4	91.8	92.9	91.5	90.2	89.1	88.7	89.3
Imports f.o.b.	74.9	74.1	73.5	87.0	86.3	84.0	83.4	83.1	83.2	83.8
Capital and financial account (net)	2.8	5.8	2.5	8.4	3.2	3.2	3.2	3.1	3.0	3.0
Gross international official reserves (in billions of U.S. dollars)	55.3	78.5	95.2	109.4	125.5	146.6	168.3	189.3	208.7	229.0
In months of prospective GNFS imports	2.5	3.5	3.4	3.5	3.6	3.8	4.0	4.1	4.1	4.1
Total external debt (in billions U.S. dollars)	110.0	122.6	125.5	133.2	145.1	159.9	175.3	193.7	209.4	227.2
In percent of GDP	36.5	37.3	36.4	36.1	35.3	34.8	34.3	34.2	33.6	33.2
Memorandum items:										
Nominal GDP (in billions of U.S. dollars)	303.1	327.9	342.9	366.2	408.4	462.4	514.4	569.7	628.1	688.3
Per capita GDP (in U.S. dollars)	3,202	3,398	3,521	3,725	4,116	4,619	5,095	5,598	6,125	6,665

Sources: Vietnamese authorities; and IMF staff estimates and projections.

1/ Follows the format of the *Government Finance Statistics Manual 2001* . Large EBFs are outside the state budget but inside the general government (revenue amounting to 6-7 percent of GDP).

2/ Excludes net lending of Vietnam Development Bank and revenue and expenditure of Vietnam Social Security.

Table 4a. Vietnam: Consolidated State Budgetary Operations, 2017–2023 1/

(In trillions of dong)

	2017	2018	2019	Budget 2020	Est. 2020	Budget 2021	Est. 2021	Budget 2022	Proj. 2022	Proj. 2023
Total revenue and grants	1231	1364	1496	1465	1477	1302	1564	1381	1541	1752
Tax revenue	916	1051	1122	1193	1061	1028	1180	1087	1168	1330
Oil revenues	50	62	56	35	44	23	39	31	62	57
CIT	36	46	42	25	35	16	27	23	44	40
Natural resource tax	14	17	14	10	9	7	11	9	18	17
Non-oil tax revenues	865	988	1066	1158	1017	1005	1141	1056	1106	1274
PIT	79	94	109	129	115	108	128	118	126	143
CIT	176	211	229	265	225	231	292	241	289	327
VAT	309	352	363	376	342	331	376	352	360	404
Trade	96	64	97	108	79	85	90	93	93	101
Others	205	265	269	281	256	251	257	253	237	298
Grants	8	8	5	5	5	8	3	8	8	8
Other revenue	308	306	369	268	411	266	380	286	366	414
Expenditure	1355	1435	1527	1747	1788	1687	1855	1785	1972	2240
Expense	987	1051	1115	1287	1251	1221	1351	1232	1408	1592
Interest	98	107	107	118	107	110	203	104	105	114
Other expense	889	945	1008	1169	1143	1111	1148	1128	1303	1463
Net acquisition of non-financial assets	368	384	412	460	537	466	504	514	564	648
Net lending (+)/borrowing (-)	-124	-72	-31	-282	-311	-385	-291	-404	-431	-488
Net incurrence of liabilities	124	72	31	...	311	...	291	...	431	488
Net incurrence of financial liabilities	191	15	101	...	499	...	170	...	422	489
Domestic	141	-18	45	...	445	...	106	...	389	431
Foreign	50	33	57	...	53	...	64	...	33	59
Disbursement	80	69	85	...	94	...	91	...	139	144
Amortization	30	36	29	...	41	...	27	...	106	86
Net acquisition of financial assets	-68	56	-71	...	-187	...	121	...	9	-1
of which: Privatization receipts	60	65	54	...	45	...	4	...	20	10
Memorandum items:										
Net lending/borrowing including VSS	-41	-9	153		-217		-201		-340	-397
Net lending/borrowing including EBFs	-33	27	22	...	-226	...	-213	...	-354	-412
Public and publicly guaranteed debt	46.3	43.7	41.3	...	41.7	...	39.7	...	40.5	40.8
Primary balance	-0.4	0.5	1.0	-2.1	-2.6	-3.3	-1.1	-3.2	-3.5	-3.6
Cyclically Adjusted Primary Balance	-1.0	0.5	1.2	...	-2.6	...	-1.5	...	-3.9	-3.8
Nominal GDP (in trillions of dong)	6293.9	6977.3	7615.6	7966.1	7966.1	8398.6	8398.6	9242.6	9242.6	10451.6

Sources: Vietnamese authorities; and IMF staff estimates and projections.

1/ Government Finance Statistics 2001 presentation. The baseline projections include assumptions of lower trade-related tax revenue due to international trade agreements, gradual improvements in tax collection, and current plans for SOE equitization/divestment. Figures consolidate central and provincial government accounts, but exclude net lending of Vietnam Development Bank and revenue and exenditure of Vietnam Social Security and other extra-budgetary funds.

Table 4b. Vietnam: Consolidated State Budgetary Operations, 2017–2023 1/

(In percent of GDP, unless otherwise indicated)

	2017	2018	2019	Budget 2020	Est. 2020	Budget 2021	Est. 2021	Budget 2022	Proj. 2022	Proj. 2023
Total revenue and grants	19.6	19.5	19.6	18.4	18.5	15.5	18.6	14.9	16.7	16.8
Tax revenue	14.5	15.1	14.7	15.0	13.3	12.2	14.1	11.8	12.6	12.7
Oil revenues	0.8	0.9	0.7	0.4	0.6	0.3	0.5	0.3	0.7	0.5
CIT	0.6	0.7	0.6	0.3	0.4	0.2	0.3	0.2	0.5	0.4
Natural resource tax	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Non-oil tax revenues	13.8	14.2	14.0	14.5	12.8	12.0	13.6	11.4	12.0	12.2
PIT	1.3	1.4	1.4	1.6	1.4	1.3	1.5	1.3	1.4	1.4
CIT	2.8	3.0	3.0	3.3	2.8	2.7	3.5	2.6	3.1	3.1
VAT	4.9	5.1	4.8	4.7	4.3	3.9	4.5	3.8	3.9	3.9
Trade	1.5	0.9	1.3	1.4	1.0	1.0	1.1	1.0	1.0	1.0
Others	3.3	3.8	3.5	3.5	3.2	3.0	3.1	2.7	2.6	2.9
Grants	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Other revenue	4.9	4.4	4.8	3.4	5.2	3.2	4.5	3.1	4.0	4.0
Expenditure	21.5	20.6	20.0	21.9	22.4	20.1	22.1	19.3	21.3	21.4
Expense	15.7	15.1	14.6	16.2	15.7	14.5	16.1	13.3	15.2	15.2
Interest	1.6	1.5	1.4	1.5	1.3	1.3	2.4	1.1	1.1	1.1
Other expense	14.1	13.5	13.2	14.7	14.4	13.2	13.7	12.2	14.1	14.0
Net acquisition of non-financial assets	5.8	5.5	5.4	5.8	6.7	5.6	6.0	5.6	6.1	6.2
Net lending (+)/borrowing (-)	-2.0	-1.0	-0.4	-3.5	-3.9	-4.6	-3.5	-4.4	-4.7	-4.7
Net incurrence of liabilities	2.0	1.0	0.4	...	3.9	...	3.5	...	4.7	5.3
Net incurrence of financial liabilities	3.0	0.2	1.3	...	6.3	...	2.0	...	4.6	5.3
Domestic	2.2	-0.3	0.6	...	5.6	...	1.3	...	4.2	4.1
Foreign	0.8	0.5	0.7	...	0.7	...	0.8	...	0.4	0.6
Disbursement	1.3	1.0	1.1	...	1.2	...	1.1	...	1.5	1.4
Amortization	0.5	0.5	0.4	...	0.5	...	0.3	...	1.1	0.8
Net acquisition of financial assets	-1.1	0.8	-0.9	...	-2.4	...	1.4	...	0.1	0.0
of which: Privatization receipts	1.0	0.9	0.7	...	0.6	...	0.0	...	0.2	0.1
Memorandum items:										
Net lending/borrowing including VSS	-0.7	-0.1	2.0		-2.7		-2.4		-3.7	-3.8
Net lending/borrowing including EBFs	-0.5	0.4	0.3	...	-2.8	...	-2.5	...	-3.8	-3.9
Public and publicly guaranteed debt	46.3	43.7	41.3	...	41.7	...	39.7	...	40.5	40.8
Primary balance	-0.4	0.5	1.0	-2.1	-2.6	-3.3	-1.1	-3.2	-3.5	-3.6
Cyclically Adjusted Primary Balance (% potential GDP)	-1.0	0.5	1.2	...	-2.6	...	-1.5	...	-3.9	-3.8
Nominal GDP (in trillions of dong)	6,294	6,977	7,616	7,966	7,966	8,399	8,399	9,243	9,243	10,452

Sources: Vietnamese authorities; and IMF staff estimates and projections.

1/ Government Finance Statistics 2001 presentation. The baseline projections include assumptions of lower trade-related tax revenue due to international trade agreements, gradual improvements in tax collection, and current plans for SOE equitization/divestment. Figures consolidate central and provincial government accounts, but exclude net lending of Vietnam Development Bank and revenue and exenditure of Vietnam Social Security and other extra-budgetary funds.

Table 5. Vietnam: Monetary Survey, 2017–2023 1/

(In trillions of dong, unless otherwise indicated)

	2017	2018	2019	2020	2021	Proj. 2022	2023
Net foreign assets	1,264	1,540	2,131	2,642	2,737	3,227	3,917
State Bank of Vietnam (SBV)	1,097	1,263	1,813	2,199	2,536	2,862	3,374
Commercial banks	167	277	319	443	200	365	543
Net domestic assets	6,930	7,672	8,443	9,469	10,665	11,692	12,941
Domestic credit	7,102	7,852	8,583	9,647	10,860	12,709	14,780
Net claims on government	556	473	257	354	312	623	968
SBV	-10	-97	-276	-485	-551	...	...
Credit institutions	566	570	533	839	863	...	...
Credit to the economy	6,546	7,379	8,326	9,293	10,548	12,086	13,813
Claims on state-owned enterprises (SOEs)	533	473	450	465	443	...	...
Claims on other sectors	6,014	6,906	7,877	8,829	10,105	...	...
In dong	6,054	6,911	7,847	8,794	9,966	...	...
In foreign currency	492	468	480	499	583	...	...
By state-owned banks (SOCBs)	3,174	3,523	3,911	4,251	4,731	...	...
By non-SOCBs	3,372	3,856	4,415	4,816	5,569	...	...
Other items net	-172	-180	-140	-178	-195	...	...
Total liquidity (M2)	8,195	9,212	10,574	12,111	13,402	14,919	16,857
Dong liquidity	7,539	8,460	9,718	11,141	12,467	...	...
Deposits	6,561	7,375	8,520	9,803	10,947	...	...
Currency outside banks	978	1,085	1,198	1,338	1,520	...	...
Foreign currency deposits	656	752	856	969	936	...	...
Memorandum items:							
Reserve money (year-on-year percent change)	20.4	6.9	24.0	10.0	12.5	19.8	13.0
Liquidity (M2; year-on-year percent change)	15.0	12.4	14.8	14.5	10.7	11.3	13.0
Currency/deposits (in percent)	13.6	13.4	12.8	12.4	12.8	...	...
Credit/deposits (total, in percent)	90.7	90.8	88.8	86.3	88.8	...	...
Credit/deposits (dong, in percent)	92.3	93.7	92	90	91	...	...
Credit/deposits (foreign currency, in percent)	75.1	62.3	56	51	62	...	...
Credit to the economy							
Total (in percent of GDP)	104.0	105.8	109.3	116.7	125.6	130.8	132.2
Total (year-on-year percent change)	17.4	12.7	12.8	11.6	13.5	14.6	14.3
In dong (year-on-year percent change)	18.1	14.2	13.5	12.1	26.8	...	...
In FC (year-on-year percent change)	10.0	-5.0	2.5	4.0	23.0	...	...
In FC at constant exchange rate (year on year percent change)	8.3	-6.2	1.6	4.6	25.3	...	...
To SOEs (year-on-year percent change)	-28.1	-11.3	-5.0	3.3	-4.6	...	...
To other sectors (year-on-year percent change)	24.4	14.8	14.1	12.1	14.5	...	...
To SOEs (percent of total)	8.1	6.4	5.4	5.0	4.2	...	...
Nominal GDP (in trillions of dong)	6,294	6,977	7,616	7,966	8,399	9,243	10,452

Sources: SBV; and IMF staff estimates and projections.

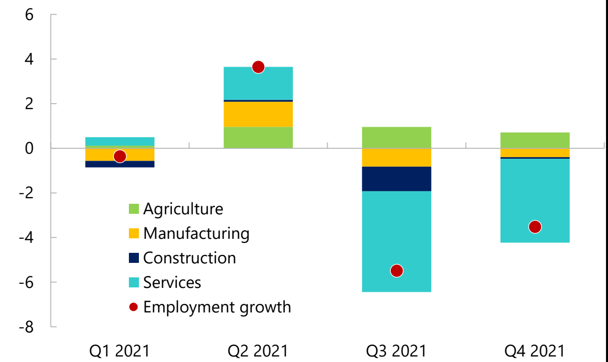
1/ Includes the SBV and deposit-taking credit institutions.

Annex I. COVID-19 Impact on the Labor Market[1]

This annex analyzes recent developments in Vietnam's labor market, especially regional differences. While a partial recovery has been in train since October 2021, structural issues remain.

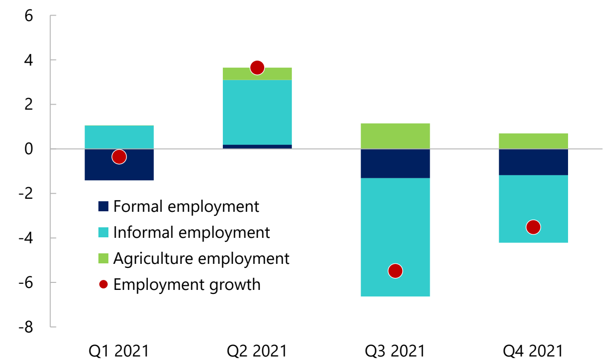
1. After signs of a partial recovery in early 2021, the labor market was severely affected by the delta wave. Despite strong employment growth in 2021Q2, the labor market recovery was still lagging, with fewer jobs, lower labor force participation rate, and higher unemployment and underemployment rates than in 2019Q2. Stringent lockdowns in 2021Q3 added to the still-soft labor market conditions, resulting in the largest employment losses in a decade. At the peak of the crisis, 28.2 million workers were affected through a combination of job losses, leave without pay, and reduced working hours and incomes. Employment shrank, driven mainly by the service sector and, to a lesser extent, manufacturing and construction. In contrast to "normal" crises, the non-farm informal sector failed to function as a shock absorber, triggering a reverse flow of workers into agriculture. In real terms, the average worker earned 12.6 percent less in 2021Q3 than a year ago, setting back the income recovery. Labor market conditions improved since2021Q4 as the economy reopened, with average quarterly wage growth back to 2020 levels in 2022Q1.

Contribution to Employment Growth by Sector
(Over the same quarter of 2020, percent)



Sources: GSO and IMF staff calculations.

Contribution to Employment Growth
(In percent, y/y)



Sources: GSO and IMF staff calculations.

2. Workers from certain demographic groups were hit disproportionately hard.

- *Age*. Youth employment was severely impaired, reflecting continued weak activity in contact-intensive sectors. Employment of prime age workers suffered the largest losses across all age groups during Q3 that only partly recovered in Q4. At end-2021, these two groups accounted for roughly half of total job destruction, while the elderly group experienced moderate increases in employment throughout the year.[2]

[1] Prepared by Federico Díez and Anh Thi Ngoc Nguyen. We thank Le Thanh Tu and Bui Anh Tuan (Vietnam Ministry of Planning and Investment) for providing data for the analysis.

[2] The positive employment growth for the 60+ cohort reflects a combination of a high ratio of elderly people working in agriculture and the Labor Code coming into effect in 2021, entailing a gradual increase in the retirement age.

- *Gender*. Female employment fared relatively well compared to male, mainly due to differences in the distribution of labor across genders and disparate growth rates across economic sectors.[3]
- *Skills*. Workers without certificates or expertise, which account for the majority of the labor force, registered the largest drop in employment. Workers with vocational training (i.e., medium-skill workers) stood out as the only skill-group with actual employment gains throughout the year. In terms of earnings, there was a drop in average wages in 2021H2, with substantial heterogeneity: high-skill workers saw an increase in the wage premium, while medium-skill workers experienced a decline.

3. **Labor market disruptions were most pronounced in the industrial South**. Vietnam can be broken down into 3 main economic regions: North, Central, and South. While all three are comparable in terms of the size of their labor force, the Northern and the Southern regions are the major economic centers, each accounting for around 45 percent of net sales of enterprises as of 2019.[4] The delta wave hit the South much harder than the other regions, resulting in industrial jobs plummeting 70 percent y/y in September 2021, compared with broadly unchanged levels in the other regions. There was a strong bounce back of employment starting in October, although the speed of recovery varied by provinces.

4. **Prolonged job losses triggered large-scale outflows of migrant workers.** Prior to the pandemic, the Southern region had the highest labor mobility in Vietnam, accounting for 50 percent of worker flows, while the Northern and Central regions accounted for roughly 30 percent and 20 percent of flows, respectively. Most labor flows occurred within regions, with only 10 percent of labor mobility involving movement across regions. Faced with strict lockdowns and the resulting job losses, many workers, especially in the South, returned to their hometowns. By December 2021, roughly 2.2 million workers had left the cities. A majority of these were self-employed and informal workers suffering from job and income losses in face of limited access to social safety nets, and unable to meet the high urban living costs.[5]

5. **High business dynamism could help bring workers and employment back, but underemployment and skill mismatches remain high.** After the sharp decline in firm entry in 2021Q3, business formation bounced back strongly since 2021Q4, creating momentum for a labor market recovery. Impediments preventing worker mobility such as transportation issues, difficulties (re)settling in cities, and uncertainty regarding future mobility appear to have eased significantly by 2022Q1. However, underemployment remains elevated, particularly in the service sector. In the near term, vocational training could compensate for human capital losses during unemployment and out-

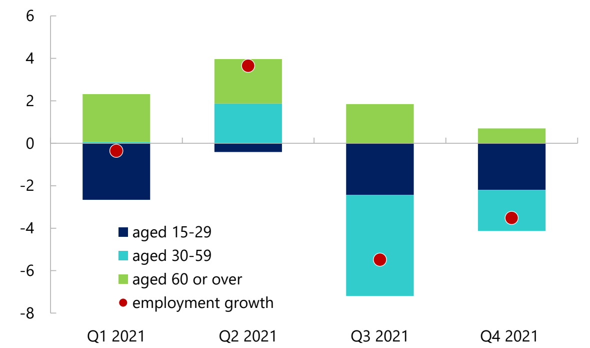
[3] In Q1 2020, 21.0 percent (27.4 percent) of male (female) employment worked in manufacturing, 15.1 percent (2.0 percent) in construction, and 35.5 percent (43.1 percent) in services.

[4] The Northern region consists of Northern Midlands and Mountainous Areas, and the Red River Delta (including Hanoi); the Central consists of North Central and Central Coastal Areas, and Central Highlands; and the Southern consists of Southeast (including Ho Chi Minh City), and Mekong River Delta.

[5] Roughly half the labor force works in the informal sector. See Dabla-Norris and others, 2020. "Role of Individual Characteristics and Policies in Driving Labor Informality in Vietnam. IMF Working Paper," No.20/273, International Monetary Fund.

of-the-labor-force spans, help workers build new skills, and foster better job matching with firms. Over the longer term, reducing labor skill mismatches and increasing human capital and technology access would also boost labor productivity (see IMF CR 21/42).

Contribution to Employment Growth by Age
(In percent, y/y)

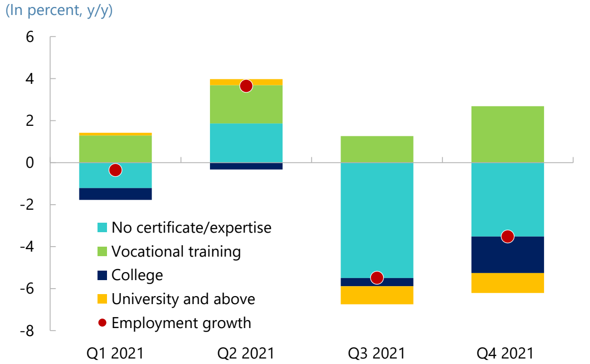


Sources: GSO and IMF staff calculations

Contribution to Employment Growth by Gender and Sector
(2021, in percent, y/y)

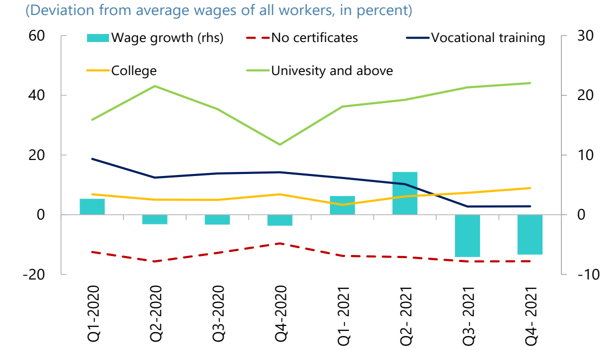
Sources: GSO and IMF staff calculations.

Contribution to Employment Growth by Skills
(In percent, y/y)



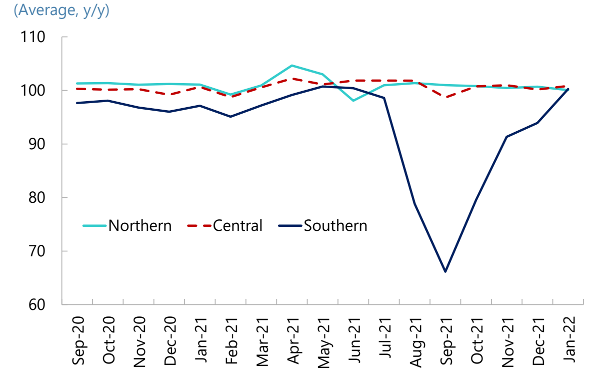
Sources: GSO and IMF staff calculations.

Average Nominal Wage by Skills
(Deviation from average wages of all workers, in percent)



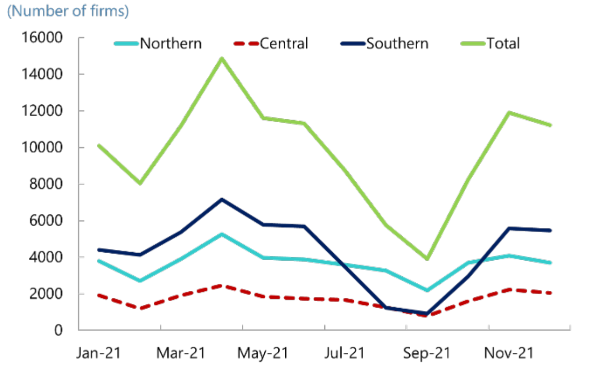
Sources: GSO and IMF staff claculations.

Labor Employment Index by Regions
(Average, y/y)



Sources: GSO and IMF staff calculations.

Firms' New Entry by Regions
(Number of firms)



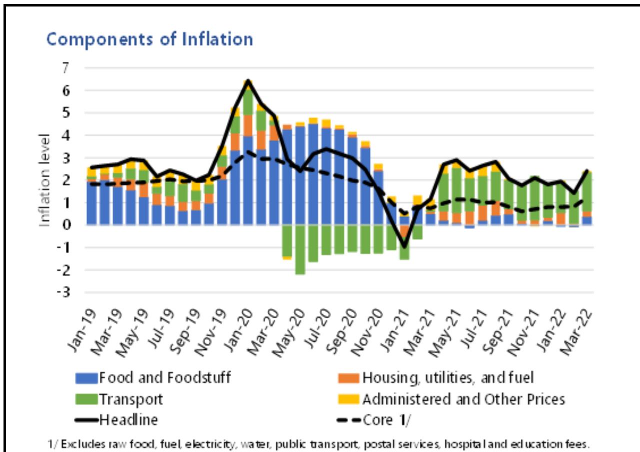
Sources: Vietnam's Agency for Business Registration and IMF staff calculations.

Annex II. Inflation Dynamics in Vietnam and Forecasts[1]

This annex examines recent inflation dynamics in Vietnam and provides quarterly short-term forecasts. While recent upticks in PPI inflation and international commodity prices have shown only limited pass-through to CPI inflation so far, all models considered predict a moderate uptick in core inflation for 2022-23, and an acceleration of headline inflation towards the SBV's 4 percent target in the short-run, followed by a stabilization at a below-target level next year. Foreign inflation and the output gap are among the main drivers underlying such projections. The analysis also highlights the outsized role played by inertia on inflation dynamics, and the long-lasting effects of current actions and shocks.

Inflation Dynamics and Drivers

1. Inflation remained subdued through 2022Q1, reflecting economic slack and stable food and administered prices. Core and headline inflation in Vietnam remained well below the SBV's (headline) 4 percent target. We find that transport costs were the main driver of price increases in 2021, particularly towards end-year. Food and foodstuff, as well as administered prices and other components of the inflation basket, played a relatively small role.



Source: Vietnamese authorities and IMF staff calculations.

2. There was limited pass-through from the recent uptick in producer prices to consumer inflation. Historical data shows a weak pass-through from PPI to headline CPI—even after 3 quarters, a 1 percentage point increase in industry PPI increases CPI by 0.5 percentage points. The disconnect between CPI and PPI is observed in several regional peers (Wei and Xie 2018). Further, the pass-through varies by sector, and is generally smaller for core CPI. Carrière-Swallow and others (2022) find that pass-through from rising shipping costs take about one year to peak in Asian countries.

Modeling Inflation Developments and Projections

3. A suite of models is used to analyze the drivers of inflation dynamics and to produce quarterly short-run forecasts.[2] These include multivariate regressions featuring an extended Phillips curve, Bayesian vector autoregressions (BVAR), and dynamic factor models (DFM), with the latter two approaches used to account for endogeneity and dynamic interactions across underlying

[1] Prepared by Valeriu Nalban (ICD), Federico Díez (APD), Giacomo Magistretti (APD), Alexandre Sollaci (RES) and Yuanyan Sophia Zhang (APD).

[2] While the analysis employed a suite of empirical data-driven aproaches, the determinants of core and headline inflation considered match most of the channels in the semi-structural model of Epstein and others (forthcoming) developed for policy analysis and projections at the SBV as part of IMF TA.

drivers.[3] The analysis considers several pull and push factors, including the output gap, credit growth, and U.S. inflation proxying for imported inflation. The nominal exchange rate (against USD) and global commodity prices (food and fuel) are also included in some models to capture exchange rate pass-through effects and spillovers from non-core inflation components. Finally, headline inflation is modeled by adding commodity, food, and fuel inflation to the projections for CPI-core.

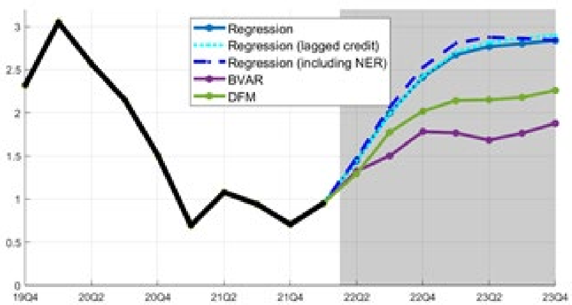
4. Core inflation is projected to gradually increase in the near term and stabilize between 1.5–2.9 percent over the medium term, and is highly persistent. As shown in the panel chart below, all models anticipate core inflation to increase in 2022 and to double, on average, by end-2022 at around 2-2.5 percent. Further, the models anticipate additional, yet milder, increases in 2023, with core inflation averaging roughly 2.5 percent by 2023Q4.[4] Regression, BVAR, and DFM forecasts are consistent with the expected elevated dynamics of foreign inflation in the short-run and the continued recovery in the domestic economy, both of which support the upward inflation trajectory. It should be noted that core inflation in Vietnam displays significant persistence—captured in the model via the outsized role of inflation's own lags, that incorporate the accumulated impact of past shocks and previous behavior of the structural determinants on current inflation.[5] These dynamics can be rationalized by the presence of nominal and real rigidities, limited pass-through of input costs, and backward-looking expectations—all of which are relevant given the features of the current monetary policy framework with no explicit inflation-targeting regime, nominal exchange rate rigidity, and past history of high inflation.

[3] For each model, the predictions for 2022Q2-2023Q4 are constructed as conditional forecasts, given exogenous assumptions for the determinants. BVAR models account for the endogenous interactions between inflation and its relevant determinants. Given limited sample length, the Bayesian approach helps reduce overparameterization and increase precision. The DFM approach employs a large list of indicators, and groups them into a small number of categories to obtain common factors, which are used as regressors for the inflation rate. The categories considered are foreign prices, economic activity, financial markets, and credit. For technical details see Karlsson (2013), Koop and Korobilis (2010), Litterman (1986), Timmermann (2006).

[4] By design, the DFM incorporates the information from a larger set of determinants, which tend to downplay the inflationary role of the drivers mentioned above, thus displaying a more moderate increase in core inflation. In the case of the BVAR, the complex lag structure and dynamic interactions among the endogenous variables results in a more persistent core inflation process, with the corresponding forecast displaying a softer increase.

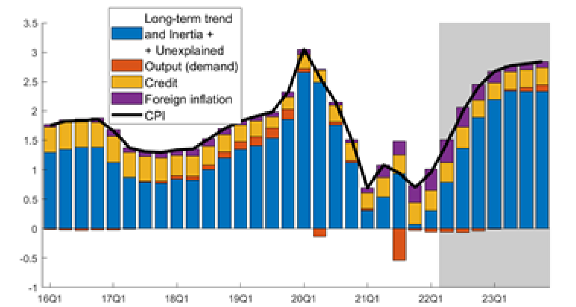
[5] Annual price increases are generally smoother than quarter-on-quarter or month-on-month dynamics. While core inflation already eliminates some volatile items from the headline CPI, this aspect still contributes to the increased statistical inertia of the modelled series. Further, in the figure, the persistence term includes, on top of the lagged values, constant and error terms.

Core Inflation Projections



Sources: Vietnamese authorities, IMF World Economic Outlook Database, Board of Governors of the Federal Reserve System (US), U.S. Energy Information Administration and IMF staff calculations.

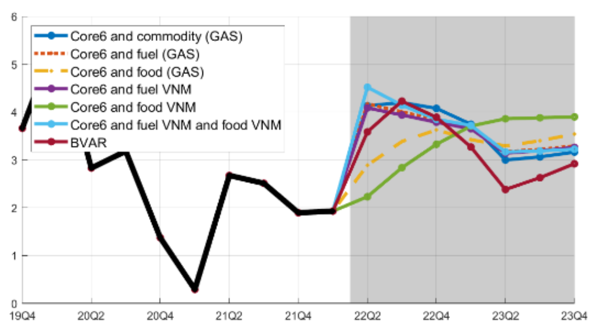
Core Inflation Breakdown



Sources: Vietnamese authorities, IMF World Economic Outlook Database, Board of Governors of the Federal Reserve System (US), U.S. Energy Information Administration and IMF staff calculations.

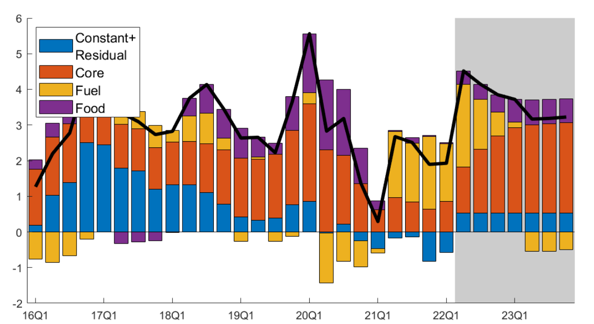
5. **Headline inflation is projected to increase but remain close to the SBV's 4 percent target by end-2023, although considerable uncertainty remains on the path of food and fuel prices.** The chart below presents the forecasted evolution of headline inflation under the different model alternatives considered. While there is considerable model uncertainty, the projections suggest an acceleration of headline inflation towards the SBV's 4 percent target in the short-run, followed by a stabilization within the SBV's target range by end-2023. Decomposition and conditional forecasts based on a regression model with core, fuel, and food prices as determinants suggest that accelerating core dynamics and, to a lesser extent, food prices are predicted to drive headline inflation towards 4 percent in the coming quarters. The contribution of fuel prices is expected to subside by end-2022 when energy prices are expected to decrease from current levels.

Headline Inflation Projections



Sources: Vietnamese authorities, IMF World Economic Outlook Database, Board of Governors of the Federal Reserve System (US), U.S. Energy Information Administration and IMF staff calculations.

Headline Inflation Breakdown



Sources: Vietnamese authorities, IMF World Economic Outlook Database, Board of Governors of the Federal Reserve System (US), U.S. Energy Information Administration and IMF staff calculations.

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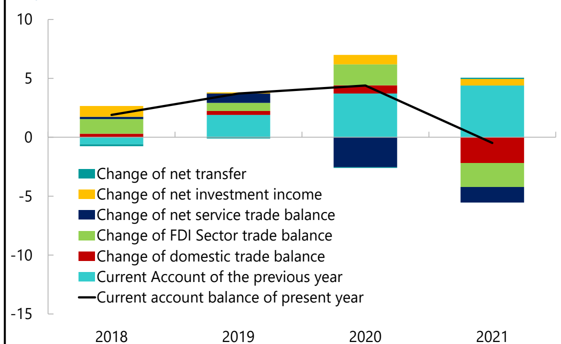
Annex III. External Sector Assessment

Vietnam's external position in 2021 is stronger than warranted by fundamentals and desirable policies. The current account gap narrowed from around 6 percent in previous years to 2.5 percent of GDP in 2021, equivalent to an exchange rate undervaluation of 4.2 percent. Narrowing imbalances reflect the large drop in private savings, as fiscal transfers failed to offset the drop in household earned income and firms drew down buffers during the pandemic.

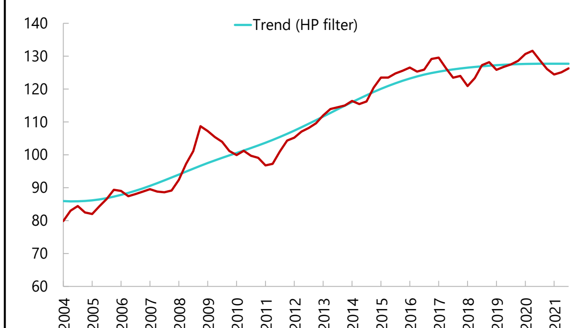
1. **The current account balance narrowed markedly in 2021, following supply chain disruptions and the protracted domestic COVID-19 outbreak.** The current account-to-GDP ratio fell from 4.4 percent in 2020 to -1 percent in 2021, reflecting a narrowing trade balance and subdued tourism activities. The trade balance turned negative starting in 2021Q2, as import prices surged on account of higher commodity prices and shipping costs, and exports tanked due to factory closures during the domestic lockdown. The trade balance improved in Q4 as trade activities resumed, but global supply chain disruptions and domestic economic slack continued to weigh on imports.

Current Account Decomposition
(In percent of GDP)



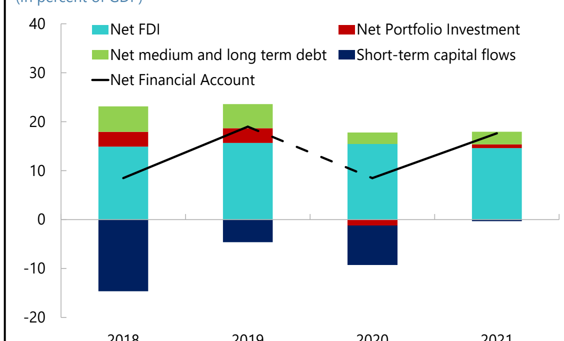
Sources: Vietnamese authorities, IMF staff calculations

Real Effective Exchange Rate, 2004-2021
(2010=100)



Sources: INS; and IMF staff calculations.

Financial Account
(In percent of GDP)



Sources: Vietnamese authorities, IMF staff calculations

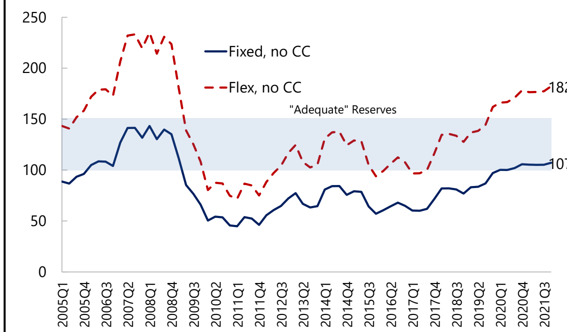
2. **The real effective exchange rate (REER) appreciated slightly in 2021.** Following three years of appreciation, the REER depreciated by 5 percent in 2020H2, driven by a NEER depreciation while inflation differentials remained unchanged. The depreciation was partially reversed in 2021 by a mild 1. percent appreciation, as larger nominal appreciation (of about 3 percent) was offset by wider inflation differentials due to subdued domestic inflation.

3. **The financial account increased in 2021.** This was largely attributed to a significant increase in money deposits, external borrowing by banks, and drawdown of FX deposits from abroad, as seen in sizable short-term capital inflows. The

rebound in FDI in the first half of the year was partly interrupted by the 4th wave of domestic COVID-19 outbreak, but international capital flows remained broadly resilient.

Reserve Adequacy Metric, 2005Q1–2021Q4

(In percent of reserve metric)



Sources: Vietnamese authorities; and IMF staff estimates

4. Reserves are broadly adequate at the current juncture. Reserve accumulation slowed slightly on account of narrowing current account balance. Gross international reserves (GIR) increased by USD 14.3 billion in 2021, including the 1.6 billion SDR allocation, compared to USD 23.3 billion and USD16.6billion in the same period of 2019 and 2020, respectively. As of December 2021, GIR are at USD 109.4 billion, equivalent to 107 percent of ARA metric. Reserve accumulation is expected to continue in 2022 on account of a higher trade surplus and stronger financial inflows.

Vietnam: Model Estimates for 2021 (in percent of GDP)

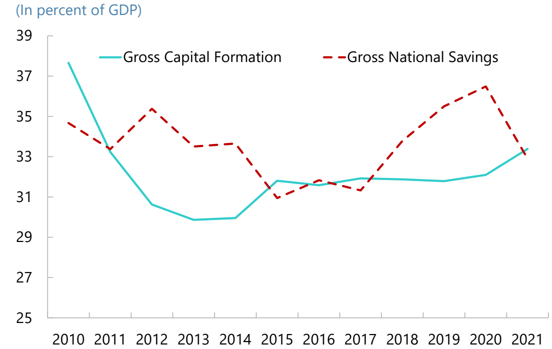
	CA model	REER model
CA-Actual	**-1.0**	
Cyclical contributions (from model) (-)	-1.1	
COVID-19 adjustor (+) 1/	0.4	
Adjusted CA	**0.5**	
CA Norm (from model) 2/	**-2.3**	
Adjustments to the norm (+)	0.3	
Adjusted CA Norm	**-2.0**	
CA Gap	**2.5**	**-0.3**
o/w Relative policy gap	3.0	
Elasticity	-0.59	
REER Gap (in percent)	**-4.2**	**0.5**

1/ Additional cyclical adjustment to account for the temporary impact of the tourism (0.4 percent of GDP).
2/ Cyclically adjusted, including multilateral consistency adjustments.

5. Vietnam's external position in 2021 is assessed to be stronger than warranted by fundamentals and desirable policies. Based on the current account (CA) approach, the overall CA gap was 2.5 percent of GDP in 2021, equivalent to a 4.2 percent of REER undervaluation, and is smaller than in previous years. The assessment incorporates adjustments on cyclical factors[1] and the norm to reflect Vietnam's population and economic structure.[2] A less expansionary fiscal stance relative to other countries and the pace of reserve accumulation, albeit slower than in the past amidst greater two-way exchange rate flexibility, contributed to the misalignment. The estimated current account gap is subject to large uncertainty owing to measurement issues (see IMF CR 21/42).

Savings and Investments

(In percent of GDP)



Sources: Vietnamese authorities and IMF staff calculations

6. Narrowing imbalances are mirrored by the decline in savings. Private savings rate declined from 35 to 30 percent of GDP as firms used retained earnings or drew down bank

[1] Import prices surged owing to rising commodity prices, shipping costs, and other inputs of raw materials and intermediate goods related to global supply chain disruptions.

[2] The adjustment reflects updated data on demographic variables and productivity (accounting for revised GDP) to capture Vietnam's population and economic structure. The NFA position is re-estimated to address the under-estimation of foreign assets reflected in large accumulated negative errors and omissions (-21.7 percent of GDP from 1995 to 2019). In addition, the model-based old-age dependency ratio overstates the impact on the current account gap (see IMF CR 21/42).

deposits to maintain businesses operations, and households reduced savings, including withdrawing contributions to the Vietnamese social security fund, to smooth consumption.

Annex IV. Progress Against IMF Recommendations

Policies	2020 Article IV Consultations Recommendations	Actions since 2020 Article IV Consultations
Fiscal Policy	Provide fiscal support targeted at vulnerable households and viable firms and improve execution. Reconsider tax deferrals. Fiscal support policy should play greater role in policy the mix.	Vietnam accelerated its vaccination rollout and extended policy support in 2021, including social protection for households, and liquidity measures for firms. There was some improvement in the implementation of support measures, and the fiscal stance remained moderately expansionary. The recent recovery program for 2022-23 envisages larger fiscal stimulus.
	Increase public investment, especially in health care sector and strengthen social protection system.	In addition to the state budget capital allocated in the annual and medium-term Public Investment Plan, half of the capital assigned in the recovery program will be used for improving the capacity of health-care establishments, social security facilities, training centers and public investment in infrastructure, including transport, power, digital, IT and green infrastructure.
	Strengthen revenue mobilization by improving tax policy and administration.	The Large Taxpayer Administration Department under the General Taxation Department was upgraded to a fully operational Large Taxpayer Office in October 2021 and started to administer 125 large corporations since early January 2022. Progress has been made in implementing the 2019 Tax Administration Law, including better administration of enterprises engaging in related party transactions, e-commerce and digital businesses, and mandatory implementation of e-invoices by businesses since July 2022.
	Adopt a prudent debt anchor.	A prudent debt anchor of 55 percent of GDP was prescribed in the Medium term National Financial, Public Debt and Repayment Plan for 2021-25.
	Improve public financial management and fiscal data accounting and reporting.	Fiscal accounting and reporting have continued to improve albeit at a slower-than-expected pace. A comprehensive and intensive Treasury modernization program is underway focusing on budget execution, active cash management, internal audit, re-designing of the Charter Accounts, financial reporting, and information systems.
Monetary Policy	Monetary policy should remain supportive.	Monetary policy continued to provide abundant liquidity, with interbank rates near historical lows.
	Enhance exchange rate flexibility.	The introduction of forward contracts to undertake FX interventions and the appreciation of the SBV's buying rate have allowed for additional exchange rate flexibility.
	Continue to modernize the monetary framework.	The modernization of the monetary policy framework is ongoing, with the SBV enhancing its analytical and forecasting capacity through IMF-supported FPAS TA.

Policies	2020 Article IV Consultations Recommendations	Actions since 2020 Article IV Consultations
		FPAS Phase I on modelling capacity was successfully completed while Phase II on structured policy discussion was launched in early 2022.
Financial Sector Policies	Closely monitor risks in the banking sector, gradually normalize loan classification and provisioning rules.	SBV has been closely monitoring risks in the banking sector. Normalization of regulatory forbearance has been postponed due to the resurgence of COVID-19 in 2021.
	Enhance banking sector resilience.	Adoption of Basel II is continuing. The authorities have taken steps to help raise SOCBs' capital via retained earnings.
	Strengthen the macroprudential framework.	Macroprudential measures to limit risks stemming from real estate and consumer loans and further reduce maturity mismatches were introduced.
	Strengthen AML mechanisms.	Vietnam is reviewing its AML/CFT framework to address gaps identified in the recent AML/CFT mutual evaluation published in early 2022. Assessment of highly suspected cases has been strengthened and detailed guidelines provided on international electronic transaction reporting requirements.
Structural policies	Improve further the business environment and reduce corruption.	A new law to revise 9 economic laws (Law on Public Investment, Law on Investment under PPP, Law on Investment, Law on Housing, Law on Bidding, Law on Electricity, Law on Enterprises, Law on Special Consumption Tax, and Law on Civil Judgment Execution) was approved in early 2022 to help remove administrative bottlenecks and enhance the business environment. The government is further promoting e-government and reducing regulations and licensing requirements, including business licenses, to simplify and improve the business environment while introducing digital public services. A decree on asset and income was approved in late 2020, the National Database project on asset and income control is expected to be approved and operationalized in 2022.
	Insolvency framework should be strengthened and simplified.	Vietnam is working on updating/upgrading Resolution 42, which empowers banks in terms of debt collection procedures.

Annex V. Impact of COVID-19 on Vietnamese Firms[1]

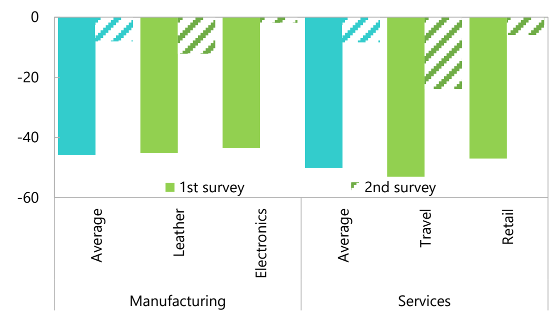
This annex uses a unique firm-level survey to examine the impact of the pandemic on formal Vietnamese firms in 2020 and evaluate the efficacy of self-coping and support measures in alleviating liquidity constraints.[2] The analysis suggests that the pandemic impact and effectiveness of policy support in alleviating liquidity strains has been heterogenous across firms.

Significant and Heterogenous Impact of COVID-19

1. **Vietnamese firms were hit hard during the pandemic.** Strict containment measures put in place in early 2020, when the first round of Vietnamese COVID-19 Enterprise Survey was conducted, significantly impacted business performance. Sales and employment dropped by close to 60 and 50 percent, respectively, in the first 4 months of 2020 compared to the same period in 2019. Economic activity picked up when a second survey was conducted in September 2020, but travel-related service industries and low-tech manufacturing industries saw a weaker rebound.

Employment Growth by Industry

(First 4 months and 9 months in 2020 compared to the same period in 2019)



Sources: GSO Survey of Covid-19 impact on corporate sector and IMF staff calculations.

Revenue Growth by Industry, Firm size and Ownership

(The first 9 months in 2020)

	large	medium	small	micro
State owned enterprise	-8.4	-14.7	-16.1	-17.3
Private firms	-15.9	-19.4	-20.6	-21.2
FDI firms	-10.3	-9.9	-12	-13.2

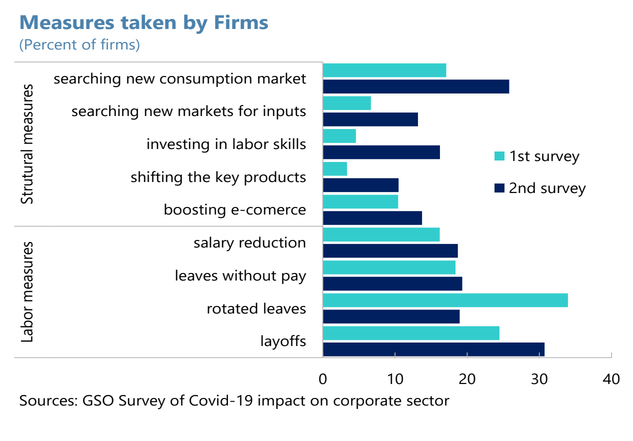
Note: Red color denotes relatively more severe impact than green color.

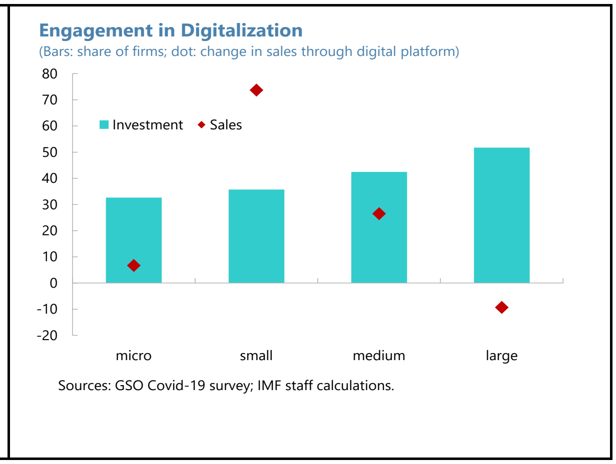
2. **Firms that entered the pandemic with weaker balance sheet conditions were more severely impacted.** Prior to COVID-19, contact-intensive sectors and smaller private firms had weaker balance sheet compared with large state-owned enterprises (SOEs) and FDI firms (Kroeger and others, 2020). The divide intensified during the pandemic. Revenue shortfalls for private and smaller firms in 2020 were almost twice as large as for other firms. Evidence from the World Bank Pulse surveys conducted from September to November 2021 after the most recent outbreak corroborates these findings for small firms in the services sector (World Bank, 2022).

[1] Prepared by Anh Thi Ngoc Nguyen and Yuanyan Sophia Zhang.

[2] The nationally-representative surveys were conducted by the Vietnamese General Statistics Office (GSO). The first survey was conducted in April 2020 and then repeated in September 2020. Over 126,000 firms and 162,000 firms participated in the survey in April and September, respectively, accounting for nearly 20 percent of total formal enterprises in the country.

3. To cope with the impact of COVID-19, firms adjusted along both the extensive and intensive margins. In addition to suspending operations, firms reacted by reducing labor costs (layoffs, reduced hours worked, rotated leave). As the economy reopened, the adjustments took the form of input and consumption market diversification and a boost in e-commerce. SMEs, mostly serving the domestic market, made greater use of e-commerce through digital platforms. Large firms, on the other hand, invested in new equipment, software, and digital solutions in response to the pandemic.



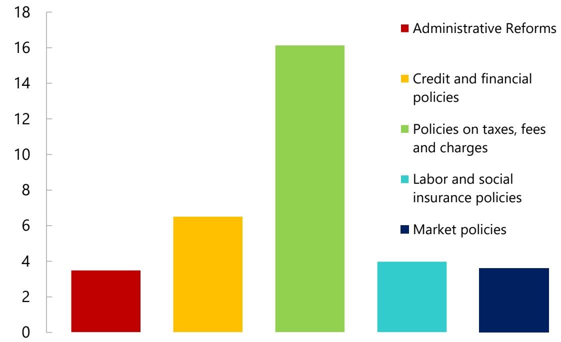


4. Take-up of policy support measures put in place in response to the pandemic was initially low. At around 17 percent (on average), take-up rates were low in 2020. As the pandemic progressed, firms seem to have used government support policies better, with more firms reporting having received some support from the government in September 2021 compared to 2020 (World Bank, 2022). Most of this support was from tax deferrals and corporate income tax and turnover tax reductions. Of the firms that did not benefit from the support policies, most were ineligible, while small firms reported cumbersome procedures and lack of information regarding support policies as key impediments.

5. Support went to the hardest-hit sectors and larger firms. A Probit regression model shows that the marginal probability of receiving policy support was generally higher for contact-intensive sectors and larger firms compared to other sectors and firms. Further, the size bias was most pronounced for credit policies, although credit to SMEs appears to have increased in 2021.[3] Controlling for size and industry, the marginal probability of receiving policy support is not significantly associated with the changes in sales and employment during the COVID-19, nor to pre-pandemic productivity. These results suggest that support, while beneficial, was not necessarily targeted to the hardest hit yet viable firms.

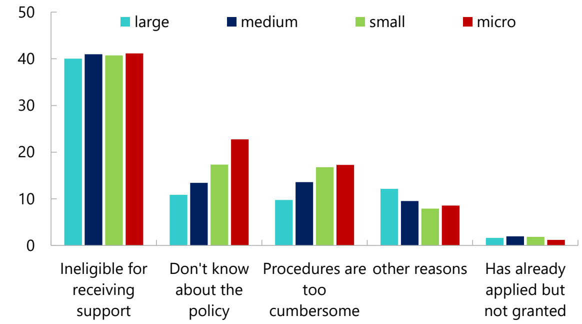
[3] According to the SBV, credit to SMEs increased by 12 percent in 2021 compared to 2020.

Policy Take-up Rates across Different Policies
(Percent of Firms)



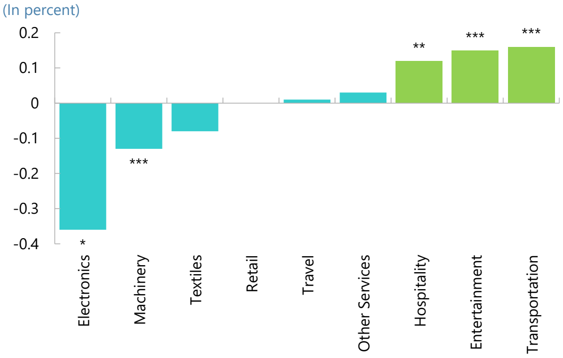
Sources: General Statistics Office of Vietnam

Reasons for Not Receiving the Support
(In percent, by firm size)



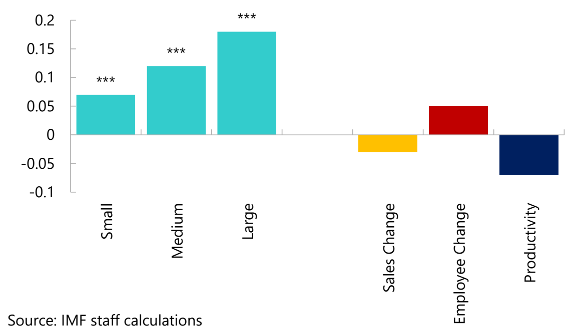
Sources: Vietnamese Corporate Survey on the impact of Covid-19, 2nd survey and IMF staff calculations.

Marginal Probability of Receiving Support by Industry
(In percent)



Source: IMF staff calculations

Marginal Probability of Receiving Support by Size, Firm Performance, and Productivity
(In percent)



Source: IMF staff calculations

Note: The marginal probability of receiving support is based on a Probit regression of $Probit\,(\text{support}_{i,j}) = \alpha + \beta\Delta X_i + \delta Prod_i + \gamma\, Industry_i + \theta Size_i + \tau Ownership_i + \epsilon_i$, where $\text{support}_{i,j} = 1$ if firm i received j support and zero otherwise; $\beta\Delta X_i$ is change in sales and employment of firm i; and $Prod_i$ is firm i's productivity.

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Annex VI. Risk Assessment Matrix

Risk	Likelihood of Risk	Time Horizon	Impact if realized	Policy Response
			External Risks	
Russia's invasion of Ukraine leads to escalation of sanctions and deglobalization.	***High*** **Downside**: Sanctions on Russia. countersanctions by Russia, and secondary sanctions on countries and companies that continue business with Russia aggravate geopolitical tensions.	*ST, MT*	***High*** Higher commodity prices, extended supply chain disruptions, tighter financial conditions, lower global demand, and less trade.	• Provide targeted policy support. • Allow greater exchange rate flexibility. • Accelerate structural reforms and improve business environment. • Diversify sourcing of intermediate goods.
Abrupt growth slowdown in China.	***Medium*** **Downside**: Real estate crash and renewed COVID-19 outbreaks slow the Chinese economy.	*ST*	***Medium*** Lower exports, especially of agricultural products and tourism.	• Allow greater exchange rate flexibility. • Facilitate reallocation of resources through structural reforms. • Diversify sourcing of intermediate goods.
Rising and volatile food and energy prices.	***High*** **Downside:** Commodity prices are volatile and trend up amid pent-up demand and supply disruptions, wars, export restrictions, and currency depreciations.	*ST/MT*	***High*** Higher inflation and lower domestic and external demand.	• Provide targeted policy support. • Allow greater exchange rate flexibility. • Accelerate structural reforms and improve business environment
De-anchoring of inflation expectations in the U.S.	***Medium*** **Downside**: Prompting Central banks to tighten abruptly, resulting sharp tightening of global financial conditions.	*ST, MT*	***High/Medium*** Lower capital inflows; increase inflationary pressure, complicate monetary policies.	• Allow greater exchange rate flexibility. • Tighten monetary policy when economic situation allows.
Outbreaks of lethal and highly contagious Covid-19 variants.	***High*** **Downside:** A vaccine resistant variant forces more social distancing and/or renewed lockdowns, resulting in extended supply chains disruptions.	*ST, MT*	***High*** Widespread corporate distress, job losses, financial stress, health crisis, deepen economic scarring and rising poverty levels.	• Secure healthcare financing and expand fiscal support for social protection and public investment. • Maintain abundant liquidity; support viable businesses. • Facilitate reallocation of resources through structural reforms. • Facilitate banks' capital restoration plans.
			Domestic Risks	
Frothiness in asset price valuations.	***High*** **Downside:** Excessive risk taking in the real estate sector and corporate bonds.	*ST, MT*	***Medium*** Re-alignment of valuations leads to negative wealth effects and/or financial stability risks.	• Tighten macroprudential and supervisory measures to cool ebullient real estate sector. • Strengthen supervision and regulation of bond market, encourage public issuance. • Develop land registry and strengthen title management. • Introduce differentiated stamp duties, taxes on rental income, and potentially a property tax.
Slow and inconsistent policy Implementation.	***Medium*** **Downside:** Coordination and capacity issues hamper implementation of the stimulus and create policy uncertainties.	*ST, MT*	***Medium*** Hampers labor reallocation and fuels supply disruptions; weak stimulus implementation slows recovery.	• Enhance policy coordination and reduce regulatory and other barriers. • Clearly communicate harmonized policies and consistent application nationally.
Debt overhang and liquidity constraints.	***Medium*** **Downside**: Businesses and households deplete buffers, propagating balance sheet stress.	*ST, MT*	***Medium*** Slows recovery threatens financial stability.	• Target support to viable firms and vulnerable households. • Closely monitor asset quality, enhance provisioning, and rebuild capital buffers.

Risk	Likelihood of Risk	Time Horizon	Impact if realized	Policy Response
		Domestic Risks		
Climate change.	***High*** **Downside:** Vietnam is amongst the most vulnerable yet least ready/able to adapt countries.	***ST, MT***	***High*** Climate change could impact more than 12 percent of the population by 2100, and reduce GDP by 10 percent by 2050.	• Address both climate mitigation and adaptation. • Lower the intensity of fossil fuels. • Provide stronger incentives through taxation of fossil fuels. • Invest in climate resilient infrastructure. • Improve capacity to adapt technological change.

"L" =Low; "M" =Medium; "H" =High. The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood of risks listed 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

Annex VII. Public and External Debt Sustainability Analysis

Vietnam's public and publicly guaranteed (PPG) debt is estimated at 39.7 percent of GDP in 2021. Under staff's baseline projections, PPG debt would increase to 40.5 percent of GDP in 2022 before stabilizing at 40.6 percent of GDP over the medium-term. Staff continues to assess the debt sustainability risk as low to moderate.

1. **Background**. The debt sustainability analysis framework for market access countries (MAC DSA) is used to assess Vietnam's debt sustainability and other risks related to its funding and debt structure. The framework uses a risk-based approach that includes (i) an assessment of the realism of baseline assumptions and the projected fiscal adjustment; (ii) an analysis of risks associated with the debt profile; (iii) macro-fiscal risks; (iv) a stochastic debt projection considering past macro-fiscal volatility; and (v) a standardized summary of risks in a heat map.

2. **Coverage**. The DSA considers public domestic and external debt. In addition to the central and local government, the analysis covers debt guaranteed by the government for state owned enterprises (SOEs) and specialized financial institutions (SFIs). Debt guarantees were around 4 percent of GDP in 2021. Their inclusion improves the assessment of the public debt risk profile. The framework assumes almost constant debt guarantees as a ratio to GDP over the medium-term. At the same time, public debt of the Vietnam Social Security (VSS) is currently not included in the in the DSA. With cross-debt holdings of about 10 percent of GDP, the inclusion of VSS positions markedly improves Vietnam's debt profile in the medium-to long-term, but rapid aging would deplete VSS assets, adding rapidly to public debt in the early 2030s.

3. **Macro-fiscal assumptions** (Figure 1). Under staff's baseline, growth is projected to increase from 2.6 percent in 2021 to 6.0 percent in 2022, before stabilizing at potential (6.7 percent) over the medium term. A primary deficit of 3.5 percent is projected in 2022, which is assumed to decline to around 2.1 percent of GDP in 2027 (compared to a debt-stabilizing primary balance of 2.5 percent of GDP).

4. **Realism of baseline assumptions** (Figure 5). The median forecast errors for real GDP growth, primary balance and inflation during 2011–19 are small (around -0.4 percent), suggesting no evidence of systematic projection bias. The maximum projected 3-year adjustment in CAPB as a percent of GDP over the projection period is realistic given experiences of other MACs.

5. **Public debt sustainability**. Under the baseline scenario (Figure 1), the PPG debt-to-GDP ratio is projected to increase by around 1 percentage point to 40.5 percent of GDP in 2022, with automatic debt dynamics from the interest rate-growth differential partially compensating for the primary deficit. With Vietnam's shortest maturities of bonds at 5 years, rollover risks are limited. PPG debt is projected at about 40.6 percent of GDP by 2027, comfortably below the government's statutory ceiling of 60 percent of GDP. The share of foreign currency-denominated debt is projected to decrease from 38 percent of total debt in 2021 to about 26 percent in 2027 (Figure 2).

6. Alternative scenarios (Figure 2). The constant primary balance alternative scenario shows that if the deficit remains at its 2022 level due to a protracted COVID-19 shock or otherwise, PPG debt could increase to around 44 percent of GDP over the medium-term. The historical scenario—in which real GDP growth, the primary balance and real interest rates are set at their historical average—shows a gradual decrease of PPG debt to about 40 percent in 2027, reflecting past consolidations against this year's one-off nature of the COVID-19 pandemic. A standard contingent liability shock representing 10 percent of banking sector assets puts PPG debt at about 54 percent of GDP by 2027.

7. Macro-fiscal stress tests (Figure 3). Vietnam is more vulnerable to real interest rate and combo shocks. In an unlikely scenario of a real interest rate shock, which increases the effective interest rate by around 750 basis points in every year over the projection horizon compared to the baseline, PPG debt would increase to around 44 percent of GDP in 2027.[1] A combined macro-fiscal shock in 2022 (incorporating the largest effect of individual shocks on all relevant variables) would increase PPG debt to about 49 percent of GDP by 2027, which remains below Vietnam's public debt ceiling of 60 percent of GDP (although close to the authorities' prudent debt anchor of 55 percent of GDP).

8. Stochastic simulations. Probability distributions under an array of macroeconomic shocks show that in a negative-case scenario, PPG debt could reach about 49 percent of GDP with 10 percent likelihood by 2027. On the other spectrum a combination of positive shocks would reduce the debt-to-GDP ratio to 27 percent with a 10 percent probability in 2027 (Figure 4).

9. Heat map. The heat map shows low risk of debt distress, with debt-to-GDP and the GFN-to-GDP ratios remaining below the MAC DSA 70 and 15 percent thresholds, respectively, under both the baseline and almost all stress scenarios (Figure 4). Finally, the assessment highlights possible risks in Vietnam's debt profile, notably in terms of external financing requirements, although this largely reflects COVID-19 related pressures.

10. External debt sustainability (Figure 6 and Table 1). Vietnam's total external debt-to-GDP ratio was 36.4 percent in 2021. Under the baseline, external debt would reach 35.6 percent of GDP in 2022 before stabilizing around 33.0 percent of GDP over the medium-term. The external debt to exports ratio and gross external financing needs remains manageable at below 50 and 12 percent, respectively. Vietnam's external debt is vulnerable to real depreciation and current account shocks while growth and interest rate shocks have only limited impact on the external debt dynamics. The currency's observed long-term real appreciation trend is an upside risk.

[1] The default DSA interest rate shock is calibrated as the difference between the maximum historical interest rate and the average of the projections. Using the historical average, instead of maximum, would result in a shock of 210 bps instead of 750 bps, and a milder debt build-up.

Figure 1. Vietnam: Public Sector Debt Sustainability Analysis (DSA)—Baseline Scenario

(In percent of GDP unless otherwise indicated)

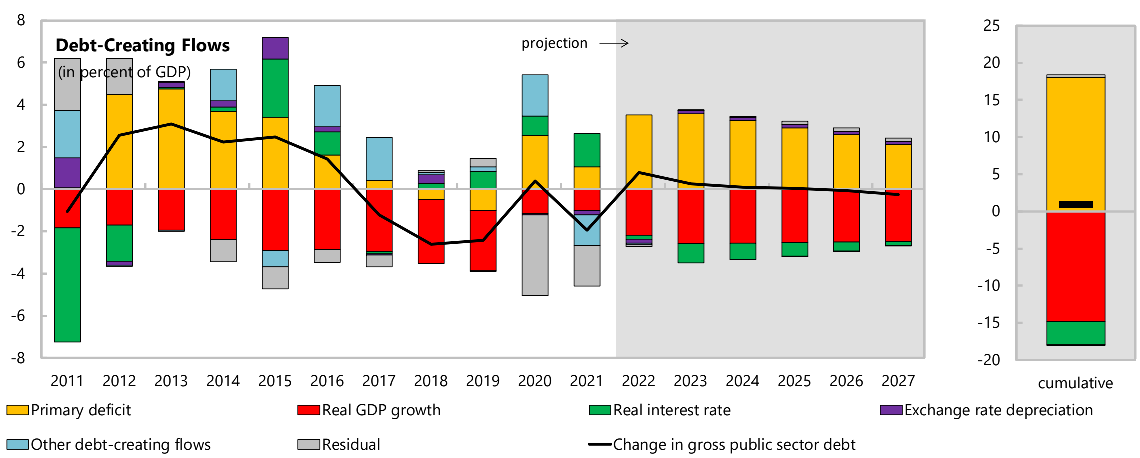
Debt, Economic and Market Indicators [1/]

	Actual			Projections					
	2011-2019 [2/]	2020	2021	2022	2023	2024	2025	2026	2027
Nominal gross state debt	42.7	41.7	39.7	40.5	40.8	40.9	40.9	40.8	40.6
Of which: guarantees	7.7	4.6	3.9	3.4	3.2	3.1	3.1	3.1	3.1
State gross financing needs	5.6	7.0	6.5	6.9	6.4	6.8	5.6	5.1	4.9
Real GDP growth (in percent)	6.5	2.9	2.6	6.0	7.2	7.0	6.9	6.8	6.7
Inflation (GDP deflator, in percent)	5.3	1.6	2.8	3.8	5.4	5.3	5.0	4.6	4.1
Nominal GDP growth (in percent)	12.2	4.6	5.4	10.0	13.1	12.7	12.3	11.8	11.1
Effective interest rate (in percent) [4/]	4.3	3.9	6.9	3.5	3.3	3.5	3.6	3.7	3.9

As of February 14, 2022		
Sovereign Spreads		
EMBIG (bp) 3/		63
5Y CDS (bp)		104
Ratings	Foreign	Local
Moody's	Ba3	Ba3
S&Ps	BB-	BB
Fitch	BB-	BB-

Contribution to Changes in Public Debt

	Actual			Projections							
	2011-2019	2020	2021	2022	2023	2024	2025	2026	2027	cumulative	debt-stabilizing primary balance [10/]
Change in gross state sector debt	0.5	0.4	-2.0	0.8	0.2	0.1	0.0	-0.1	-0.3	0.9	
Identified debt-creating flows	0.3	4.2	0.0	0.9	0.2	0.1	-0.1	-0.2	-0.4	0.5	
Primary deficit	1.9	2.6	1.1	3.5	3.6	3.3	2.9	2.6	2.1	18.0	-2.5
Primary (noninterest) revenue and grants	19.1	18.5	18.6	16.7	16.8	16.9	17.1	17.4	17.7	102.4	
Primary (noninterest) expenditure	20.9	21.1	19.7	20.2	20.3	20.1	20.0	20.0	19.8	120.4	
Automatic debt dynamics [5/]	-2.3	-0.3	0.4	-2.6	-3.3	-3.2	-3.0	-2.8	-2.5	-17.4	
Interest rate/growth differential [6/]	-2.7	-0.3	0.6	-2.4	-3.5	-3.3	-3.2	-2.9	-2.7	-18.0	
Of which: real interest rate	-0.2	0.9	1.6	-0.2	-0.9	-0.8	-0.6	-0.4	-0.2	-3.1	
Of which: real GDP growth	-2.5	-1.2	-1.0	-2.2	-2.6	-2.5	-2.5	-2.5	-2.5	-14.8	
Exchange rate depreciation [7/]	0.4	-0.1	-0.2	…	…	…	…	…	…	…	
Other identified debt-creating flows	0.8	2.0	-1.4	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	
Fiscal- Net privatization proceeds (negative)	0.2	-0.4	0.0	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.6	
Contingent liabilities [8/]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Fiscal- Net acquisition of financial assets	0.6	2.4	-1.4	0.1	0.1	0.1	0.1	0.1	0.1	0.5	
Residual, including asset changes [9/]	0.2	-3.8	-1.9	-0.1	0.0	0.0	0.2	0.2	0.1	0.4	



Source: IMF staff.

1/ Public sector is defined as general government and includes public guarantees, defined as SOEs.

2/ Based on available data.

3/ EMBIG, latest available.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as [(r - π(1+g) - g + ae(1+r)]/(1+g+π+gπ)) times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as r - π (1+g) and the real growth contribution as -g.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as ae(1+r).

8/ Includes 0.2 percent of GDP remaining cost of recapitalizing Agribank (8.8 trillion dong), assumed to be finalized by end-2019.

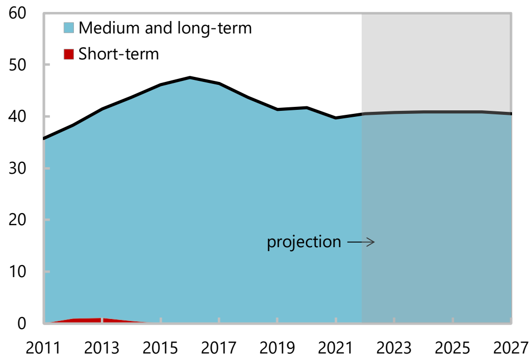
9/ Includes changes in the stock of guarantees, asset changes, and interest revenues (if any).

10/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

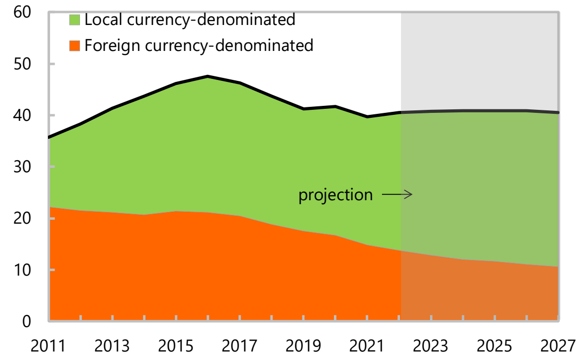
Figure 2. Vietnam: Public DSA—Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

By Maturity
(in percent of GDP)



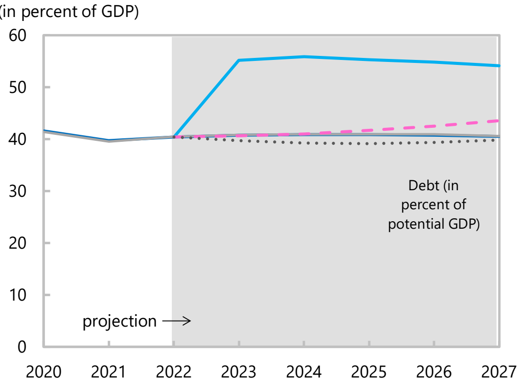
By Currency
(in percent of GDP)



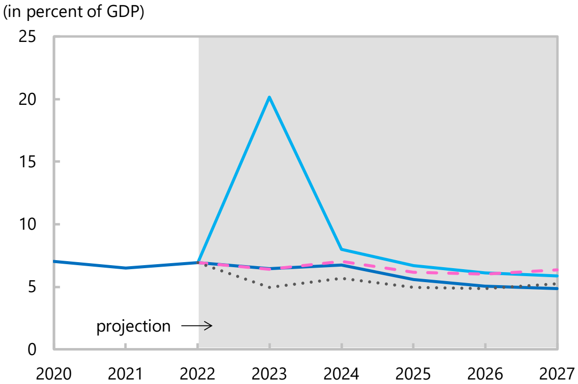
Alternative Scenarios

Baseline
Contingent Liability Shock
Historical
Constant Primary Balance

Gross Nominal Public Debt
(in percent of GDP)



Public Gross Financing Needs
(in percent of GDP)



Underlying Assumptions
(in percent)

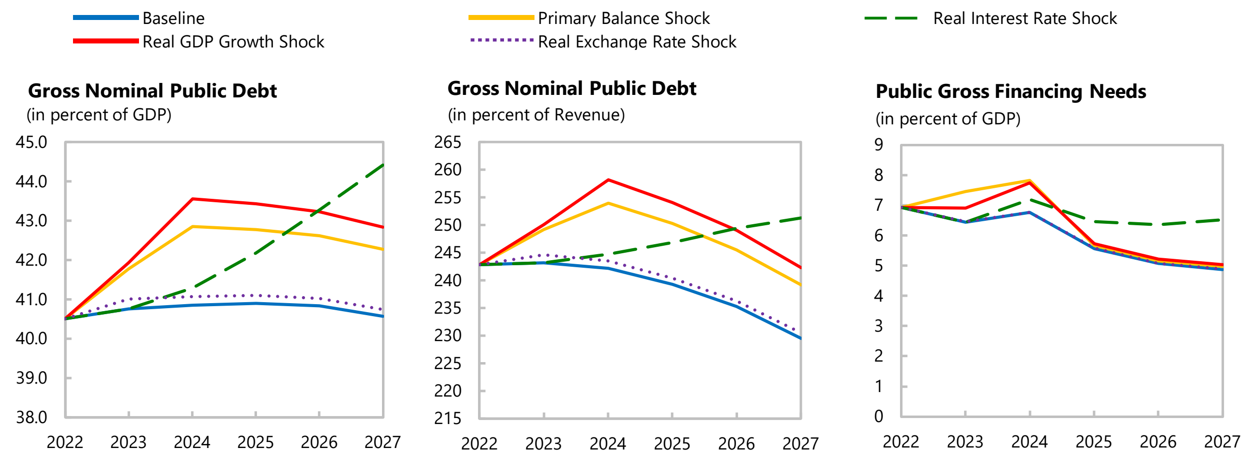
Baseline Scenario	2022	2023	2024	2025	2026	2027
Real GDP growth	6.0	7.2	7.0	6.9	6.8	6.7
Inflation	3.8	5.4	5.3	5.0	4.6	4.1
Primary Balance	-3.5	-3.6	-3.3	-2.9	-2.6	-2.1
Effective interest rate	3.5	3.3	3.5	3.6	3.7	3.9
Constant Primary Balance Scenario						
Real GDP growth	6.0	7.2	7.0	6.9	6.8	6.7
Inflation	3.8	5.4	5.3	5.0	4.6	4.1
Primary Balance	-3.5	-3.5	-3.5	-3.5	-3.5	-3.5
Effective interest rate	3.5	3.3	3.5	3.6	3.7	3.9

Historical Scenario	2022	2023	2024	2025	2026	2027
Real GDP growth	6.0	5.8	5.8	5.8	5.8	5.8
Inflation	3.8	5.4	5.3	5.0	4.6	4.1
Primary Balance	-3.5	-2.0	-2.0	-2.0	-2.0	-2.0
Effective interest rate	3.5	3.3	3.8	4.3	4.7	5.1
Contingent Liability Shock						
Real GDP growth	6.0	5.5	5.3	6.9	6.8	6.7
Inflation	3.8	5.0	4.8	5.0	4.6	4.1
Primary Balance	-3.5	-17.1	-3.3	-2.9	-2.6	-2.1
Effective interest rate	3.5	3.8	4.9	4.9	4.9	4.9

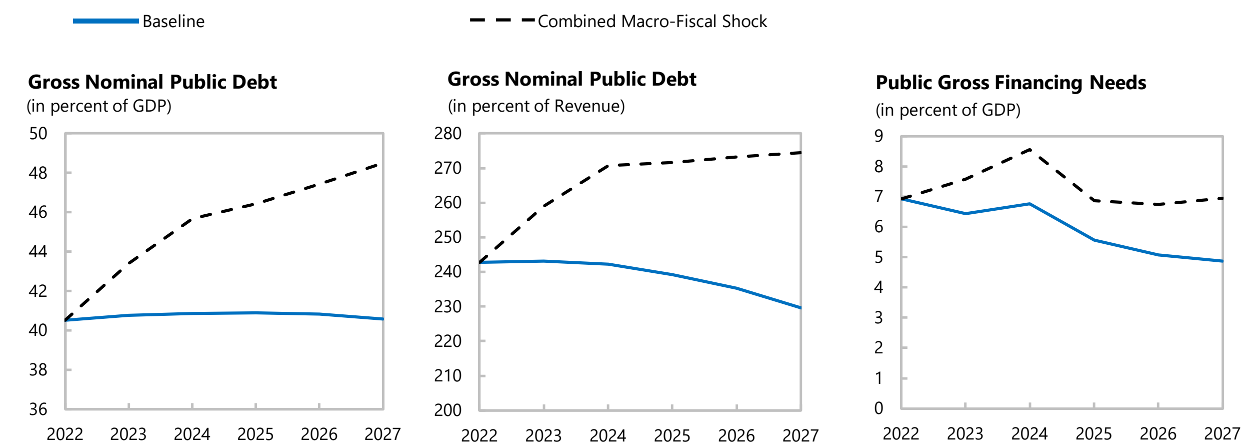
Source: IMF staff.

Figure 3. Vietnam: Public DSA—Stress Tests

Macro-Fiscal Stress Tests



Additional Stress Tests



Underlying Assumptions

(in percent)

Primary Balance Shock	2022	2023	2024	2025	2026	2027
Real GDP growth	6.0	7.2	7.0	6.9	6.8	6.7
Inflation	3.8	5.4	5.3	5.0	4.6	4.1
Primary balance	-3.5	-4.6	-4.3	-2.9	-2.6	-2.1
Effective interest rate	3.5	3.3	3.5	3.7	3.8	4.0
Real Interest Rate Shock						
Real GDP growth	6.0	7.2	7.0	6.9	6.8	6.7
Inflation	3.8	5.4	5.3	5.0	4.6	4.1
Primary balance	-3.5	-3.6	-3.3	-2.9	-2.6	-2.1
Effective interest rate	3.5	3.3	4.8	6.2	7.3	8.2
Combined Shock						
Real GDP growth	6.0	5.5	5.3	6.9	6.8	6.7
Inflation	3.8	5.0	4.8	5.0	4.6	4.1
Primary balance	-3.5	-4.6	-4.3	-2.9	-2.6	-2.1
Effective interest rate	3.5	3.4	4.9	6.4	7.4	8.3

Real GDP Growth Shock	2022	2023	2024	2025	2026	2027
Real GDP growth	6.0	5.5	5.3	6.9	6.8	6.7
Inflation	3.8	5.0	4.8	5.0	4.6	4.1
Primary balance	-3.5	-4.0	-4.1	-2.9	-2.6	-2.1
Effective interest rate	3.5	3.3	3.5	3.7	3.8	3.9
Real Exchange Rate Shock						
Real GDP growth	6.0	7.2	7.0	6.9	6.8	6.7
Inflation	3.8	7.2	5.3	5.0	4.6	4.1
Primary balance	-3.5	-3.6	-3.3	-2.9	-2.6	-2.1
Effective interest rate	3.5	3.4	3.4	3.6	3.7	3.9

Source: IMF staff.

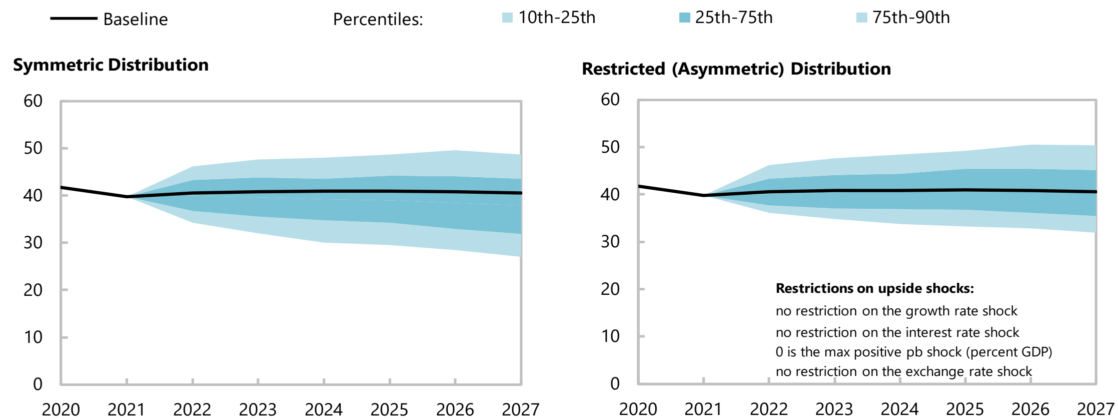
Figure 4. Vietnam: Public DSA—Risk Assessment

Heat Map

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

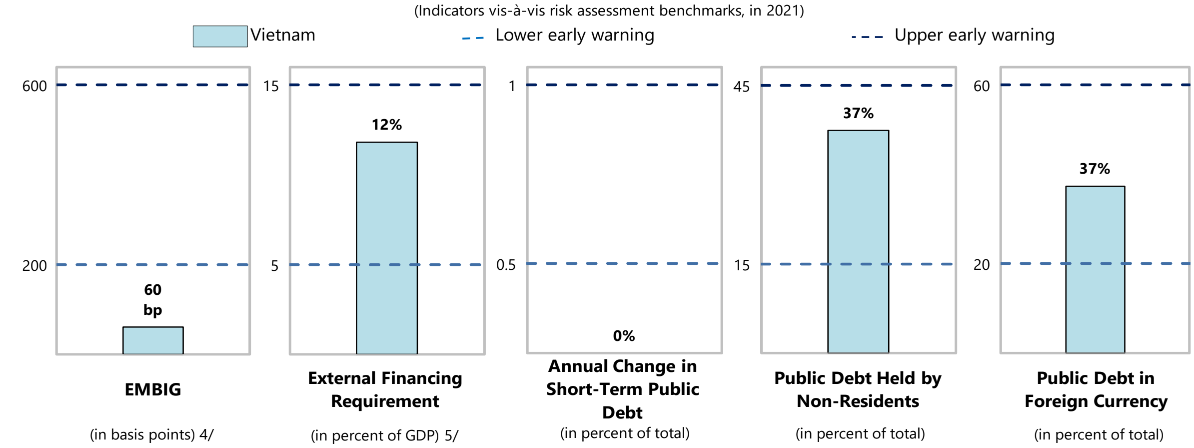
Evolution of Predictive Densities of Gross Nominal Public Debt

(in percent of GDP)



Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2021)



Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 70% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 15% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

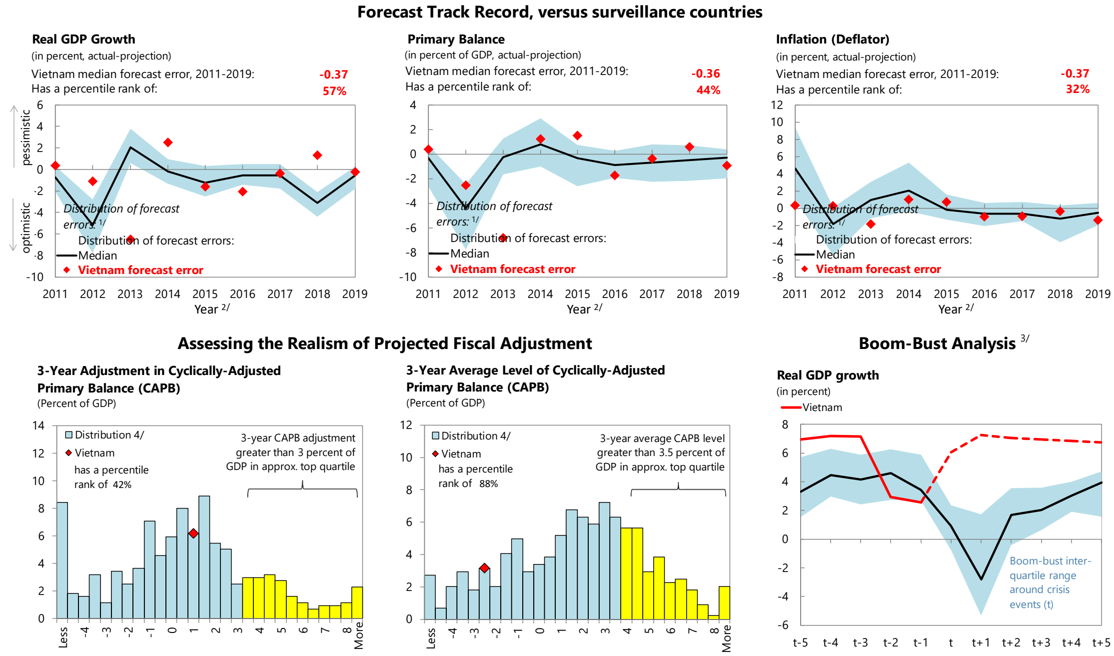
3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.
Lower and upper risk-assessment benchmarks are:

200 and 600 basis points for bond spreads; 5 and 15 percent of GDP for external financing requirement; 0.5 and 1 percent for change in the share of short-term debt; 15 and 45 percent for the public debt held by non-residents; and 20 and 60 percent for the share of foreign-currency denominated debt.

4/ EMBIG, an average over the last 3 months, 25-Jul-20 through 23-Oct-20.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

Figure 5. Vietnam: Public DSA—Realism of Baseline Assumptions 1/



Source : IMF Staff.

1/ Plotted distribution includes surveillance countries, percentile rank refers to all countries.

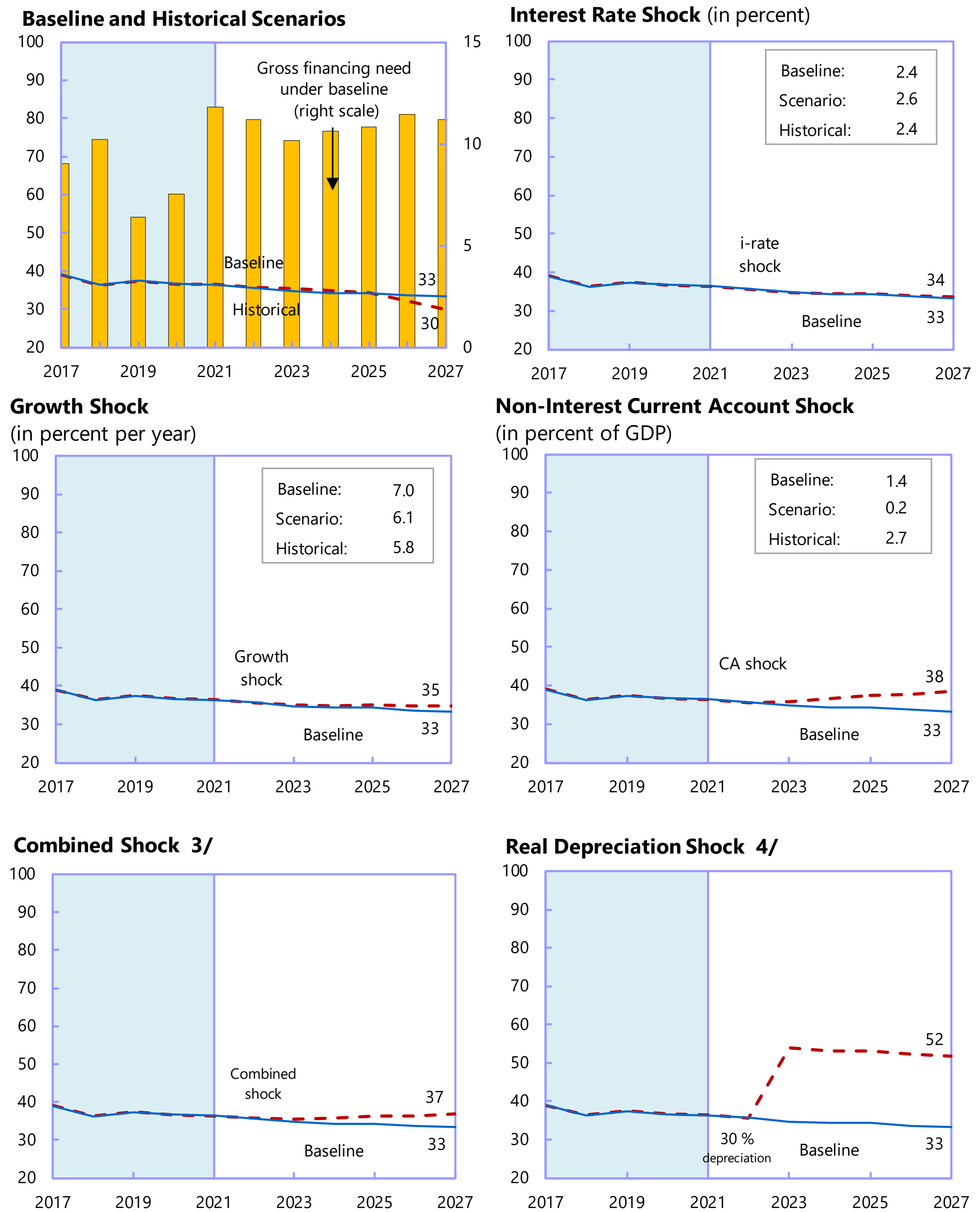
2/ Projections made in the spring WEO vintage of the preceding year.

3/ Vietnam has had a cumulative increase in private sector credit of 20 percent of GDP, 2018-2021. For Vietnam, t corresponds to 2022; for the distribution, t corresponds to the first year of the crisis.

4/ Data cover annual obervations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

Figure 6. Vietnam: External Debt Sustainability: Bound Tests 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 2022.

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

	Actual							Projections						
	2017	2018	2019	2020	2021			2022	2023	2024	2025	2026	2027	Debt-stabilizing non-interest current account 6/
Baseline: External debt	39.0	36.3	37.4	36.6	36.4			35.5	34.6	34.1	34.0	33.3	33.0	-5.1
Change in external debt	3.9	-2.7	1.1	-0.8	-0.2			-0.8	-1.0	-0.5	-0.1	-0.6	-0.3	
Identified external debt-creating flows (4+8+9)	-7.5	-10.2	-11.2	-10.5	-5.5			-6.7	-7.4	-6.8	-6.1	-5.3	-5.0	
Current account deficit, excluding interest payments	-0.2	-2.9	-4.5	-5.2	0.2			-1.5	-2.1	-1.8	-1.4	-0.8	-0.8	
Deficit in balance of goods and services	-2.5	-4.2	-6.0	-6.0	-0.5			-2.4	-3.2	-3.2	-2.9	-2.3	-2.3	
Exports	82.4	85.3	86.7	84.6	92.8			94.2	93.2	92.4	91.8	91.3	91.8	
Imports	79.9	81.1	80.6	78.7	92.3			91.8	89.9	89.2	88.9	89.0	89.5	
Net non-debt creating capital inflows (negative)	-4.9	-4.9	-4.8	-4.5	-4.2			-4.0	-3.8	-3.6	-3.3	-3.2	-3.0	
Automatic debt dynamics 1/	-2.4	-2.3	-1.9	-0.8	-1.5			-1.2	-1.5	-1.4	-1.4	-1.4	-1.3	
Contribution from nominal interest rate	0.8	1.0	0.8	0.8	0.8			0.8	0.8	0.7	0.7	0.8	0.8	
Contribution from real GDP growth	-2.2	-2.6	-2.4	-1.1	-0.9			-2.0	-2.3	-2.2	-2.1	-2.1	-2.0	
Contribution from price and exchange rate changes 2/	-0.9	-0.8	-0.3	-0.6	-1.4			...	...	...	...	...	...	
Residual, incl. change in gross foreign assets (2-3) 3/	11.4	7.5	12.4	9.7	5.2			5.8	6.4	6.3	6.0	4.7	4.7	
External debt-to-exports ratio (in percent)	47.3	42.5	43.2	43.3	39.2			37.7	37.1	36.9	37.0	36.5	35.9	
Gross external financing need (in billions of US dollars) 4/	25.0	30.9	20.9	25.8	43.3			45.6	46.9	54.5	61.7	71.8	77.0	
in percent of GDP	9.0	10.2	6.4	7.5	11.8	10-Year	10-Year	11.2	10.1	10.6	10.8	11.4	11.2	
Scenario with key variables at their historical averages 5/								35.5	35.4	34.7	33.9	31.6	29.4	-5.8
Key Macroeconomic Assumptions Underlying Baseline						Historical Average	Standard Deviation							
Real GDP growth (in percent)	6.9	7.2	7.2	2.9	2.6	5.8	1.7	6.0	7.2	7.0	6.9	6.8	6.7	
GDP deflator in US dollars (change in percent)	2.8	2.0	1.0	1.6	4.1	2.0	3.3	5.2	5.6	3.9	3.6	3.2	2.7	
Nominal external interest rate (in percent)	2.4	2.9	2.4	2.3	2.3	2.4	0.3	2.4	2.4	2.4	2.4	2.5	2.5	
Growth of exports G&S (US dollar terms, in percent)	20.7	13.3	9.9	2.2	17.1	12.5	5.5	13.1	12.0	10.4	10.0	9.7	10.3	
Growth of imports G&S (US dollar terms, in percent)	21.4	11.0	7.6	2.0	25.3	12.2	7.2	10.9	11.0	10.3	10.4	10.4	10.3	
Current account balance, excluding interest payments	0.2	2.9	4.5	5.2	-0.2	2.7	2.3	1.5	2.1	1.8	1.4	0.8	0.8	
Net non-debt creating capital inflows	4.9	4.9	4.8	4.5	4.2	4.3	0.6	4.0	3.8	3.6	3.3	3.2	3.0	

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.

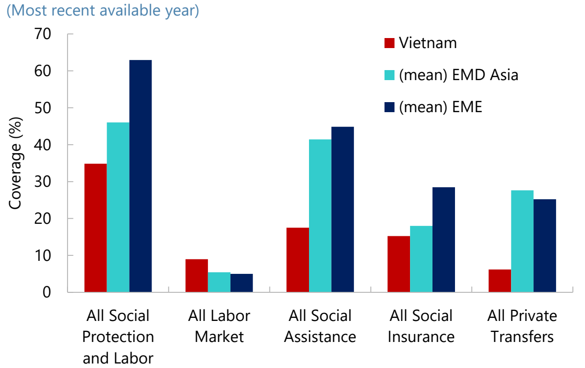
6/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

Annex VIII. Digitalization and Social Protection in Vietnam[1]

This annex presents evidence on the benefits of using digital technologies in social protection systems. Micro simulations, using data from the Vietnam Household Living Standard Survey, point to significant welfare gains from using digital tools for social protection during the pandemic.

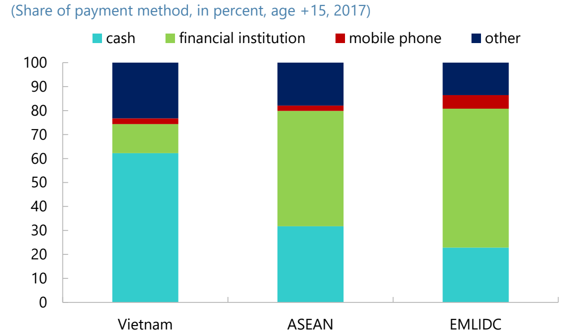
1. **Despite ongoing reform efforts, the coverage provided by Vietnam's social protection system is still incomplete, and delivery remains fragmented.** Prior to the pandemic, coverage of social protection programs was low compared to peers, including labor market support measures, social assistance (cash transfers), and social insurance, in part related to the large informal workforce. In 2019, only 26.5 percent of the labor force was covered by social insurance. [2] Classification of beneficiaries was also piecemeal, and coverage particularly low in the existing emergency support programs (World Bank, 2021). Moreover, while Vietnam has well developed social programs for the extreme poor, there is relatively little assistance offered to other vulnerable groups, such as informal urban workers. The delivery system for providing support was suboptimal, relying on manual, time-consuming registration and inefficient payment procedures.

Coverage, Social Protection and Labor
(Most recent available year)



Sources: IMF FAD Social Protection & Labor Assessment Tool (SPL-AT) and World Bank ASPIRE

Government Transfer Payments (G2P)
(Share of payment method, in percent, age +15, 2017)



Sources: Calculations based on World Bank FINDEX database.
Note: Country groups are simple averages.

2. **These long-standing challenges affected the timeliness and effective delivery of assistance during lockdowns.** According to World Bank (2022), an estimated USD 1.9 billion in aggregate household income was lost during the lockdowns in 2021Q3. Since existing vulnerable groups and social assistance recipients were preapproved to receive COVID-19 relief top-ups, the benefits from pandemic relief were received by poor households. However, because of the strict

[1] Prepared by Amr Hosny and Alexandre Sollaci.

[2] Social assistance in Vietnam includes social insurance schemes (mandatory for employees with contract over 1 month and voluntary for others) and unemployment insurance (compulsory for workers with contract above 3 months); a health insurance system that fully subsidizes the premium for the poorest and children under 6, and offers partial subsidies for other categories; social assistance (cash transfer) programs (regular benefits and emergency relief); and a large number of programs targeted to specific vulnerable groups, areas and sectors.

criteria and the lack of data on the informal sector that could be verified or cross-checked against social insurance or other databases, expansion of the safety net to reach new beneficiaries was much smaller in scale. As a result, millions of workers working on an informal basis were left out of existing safety nets.

Micro Simulations of the Welfare Gains from Digital Social Protection During COVID

3. Data from the Vietnam Household Living Standards Survey (VHLSS) shows that despite pervasive informality, digital access among informal workers is fairly high.[3] Around 53 percent of households have at least one member that is an informal worker, with informal jobs concentrated in the services sector (55 percent). Among these households, about 60 percent do not have access to financial services, while 28 percent are not eligible to receive any social security payments (as all adults work informally). However, most informal workers live in urban areas and have digital access: 76 percent of households with at least one informal worker have access to the internet and an even larger number to mobile phones. These numbers are encouraging for the implementation of a system of digital payments by the government.

4. In an illustrative exercise, the potential gains from expanding the coverage of social protection through digital payments during the COVID-19 pandemic is simulated. The COVID-19 recession is modeled as an exogenous income shock that primarily affects workers in the service sector, as service jobs are much more likely to be disrupted by social distancing restrictions (Hosny and Sollaci, forthcoming). In addition, informal workers are disproportionately hurt by the shock, as they do not typically have access to unemployment benefits.[4] Under these assumptions, the income of household h can be modeled as:

$$y_h(\varepsilon) = y_h(0) \times \left[1 - s_h^i \varepsilon - (1-\theta) s_h^f \varepsilon\right]$$

where $y_h(0)$ is household h's initial income (pre-COVID), s_h^i is the share of adults working informally in the service sector, s_h^f is the share of adults with formal jobs in the service sector, θ is the share of income that workers receive from unemployment benefits (equal to 0.6 in Vietnam's case, following current provisions under the VSS), and ε is the size of the income shock. The size of the shock can be interpreted as either the share of income lost during the pandemic or as the amount of time (as a share of the year) during which a worker received no income. We simulate three different scenarios with $\varepsilon \in \{0.25, 0.5, 1\}$ to test for different severities of the recession.

5. The illustrative simulation models income distributions under different scenarios. Specifically, four scenarios are considered: (i) pre-COVID (data); (ii) COVID-19 shock and no transfers; (iii) COVID-19 shock and existing transfers (unemployment insurance (UI) only to formal workers); and (iv) COVID-19 shock and digital payments (payments to informal workers with digital access). Each of these cases is shown in the figure. Panel (a) below plots the first two scenarios, showcasing

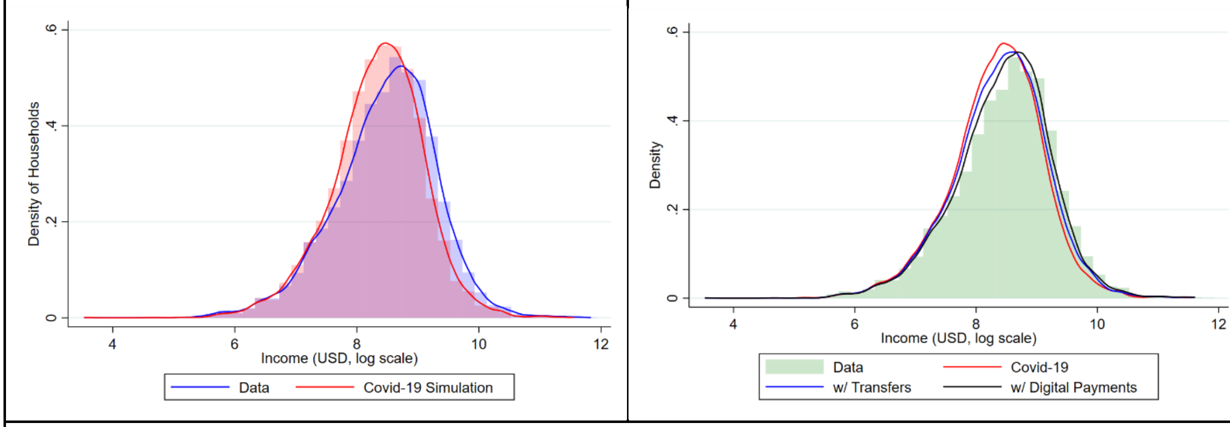
[3] The data is obtained from the 2018 vintage of the VHLSS, a nationally representative survey of households in Vietnam.

[4] Note that workers in other sectors were affected by COVID-19 as well.This exercise should be seen as illustrative.

the shift in the income distribution caused by the pandemic. Note that the pandemic shock affects the income of households across the entire distribution, both shifting it towards zero and raising its peak around a smaller mean. Panel (b) includes the income distribution with current UI transfers and the distribution with digital payments. In each case, the simulated income distribution moves closer to the pre-pandemic data, as more households are eligible for transfers that bring their income closer to the pre-pandemic level.

Figure 1. Vietnam: Income Distributions Under Counterfactual Scenarios, $\varepsilon = 0.5$

Income Distribution: No Transfers | **Counterfactual Income Distributions**



Source: Calculations based on VHLSS.

6. Baseline results suggest that implementing digital payments for social protection could have reduced the average household income loss by half. To measure the impact of the pandemic shock in each case, the average income under each of the counterfactual distributions is compared relative to the baseline (see Table 1). Under the baseline scenario ($\varepsilon = 0.5$), we find that the pandemic reduces average household income by approximately 17 percent per year. Relative to this lower base, UI benefits for formal workers increase the average income by about 6 percent, while digital payments for informal workers with digital access increase the average income by another 6 percent. As such, digital payments cut the impact of the COVID-19 shock by about half compared to current benefits. Table 1 shows that gains can be even higher under alternative income shocks.

Table 1. Vietnam: Average Income Loss (percent, relative to 2018 baseline)

	$\varepsilon = 0.25$	$\varepsilon = 0.5$	$\varepsilon = 1$
No transfers	-6.83	-16.92	-37.09
UI transfers	-3.90	-11.05	-25.36
Digital payments	-1.07	-5.41	-14.06

Source: Calculations based on 2018 VHLSS.

Conclusion

7. Vietnam is advancing on individual pieces of the digitalization puzzle, and the next step is to put these pieces together. Several steps have already been taken towards the digitalization of social payments.[5] The planned investments in IT and digital infrastructure under the recently approved 2022-23 Program for Recovery and Development provide another important opportunity to fundamentally improve and automatize the processing of social protection systems. Linking digital IDs with bank and/or mobile money accounts could culminate in a unified and comprehensive beneficiary database securely available to all relevant ministries and agencies that would facilitate greater financial inclusion and allow for a speedy and targeted delivery of social protection programs in case of need.

[5] The 2015 resolution 36A/NQ-CP on e-government and the 2017 Directive 16/CT-TTg on the strengthening of the ability to access the fourth industrial revolution can be considered as the first steps towards digitalization. In an effort to contribute to building the national population database, one of the six databases mentioned in the 2015 Decision No 714/QD-TTg on e-gov, the Department of Public Security is issuing fully digitized foundational IDs for the entire population, to replace existing, largely paper-based, ID cards. Vietnam is also piloting a nationwide mobile money project, as part of the PM 2021 Decision 316-TTg, with transaction limits at VND 10 mn (around $430) per month, including procedures to facilitate e-KYC, to facilitate digital payments (such as sending/receiving domestic remittances) and to better reach rural and unbanked populations.

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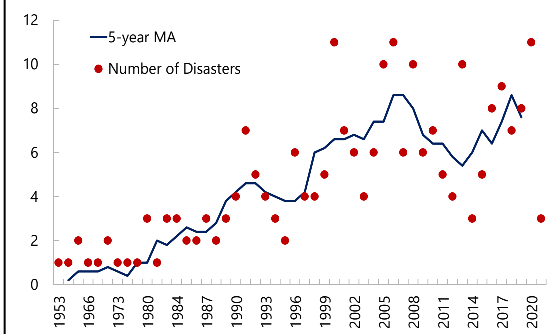
Annex IX. Adapting to Climate Change in Vietnam[1]

1. Vietnam is highly vulnerable to climate change. The impact of climate change is already being felt in the form of extreme events, more frequent and intense floods, and severe droughts—trends that could intensify over time. Long coastlines and heavily populated low-lying areas also make Vietnam one of the world's most vulnerable countries to rising sea levels: a one-meter rise in sea levels is estimated to inundate about 5 percent of the nation's territory (GFDRR, 2015). The total costs of climate hazards already exceed $3-$5 billion per year but can reach over $10 billion in case of an increase in the intensity and frequency of extreme events. In the absence of appropriate policy responses, 10-15 percent of the country's GDP could be lost by 2050 (World Bank, CCDR forthcoming).

Extreme Weather Events and Natural Disasters

(Number per year; 5-year MA)

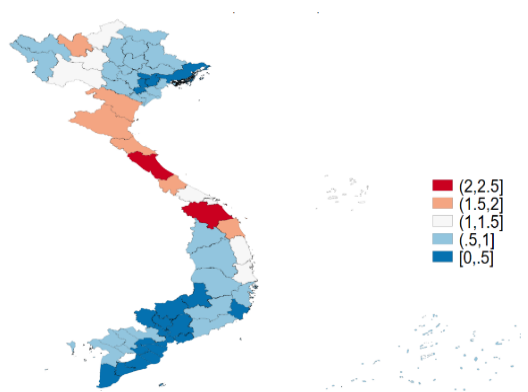


Source: EM-DAT and Staff calculations

2. Exposure to climate is heterogeneous across the country. Using historical data from the EM-DAT database, we find considerable variance in the average number of extreme weather events that hit each province, with the central regions being the most affected (Figure 1). Figure 2 shows that rising sea levels put the fertile Mekong Delta and the industrial belt surrounding Ho Chi Minh city at risk. At the same time, the projected rises in temperature between 2018 and 2050 could be 50 percent higher in northern regions compared to the south, highlighting important spatial differences in different climate impacts and exposure.[2]

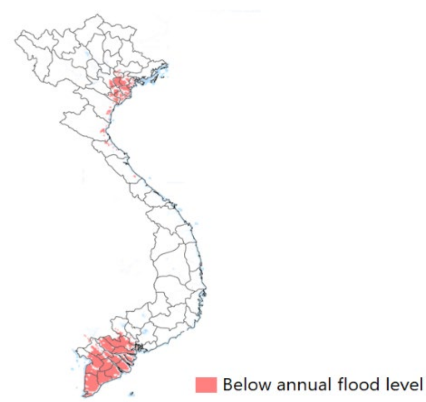
Number of Extreme Weather Events

(2000-2021)



Source: EM-DAT and staff calculations

Land Below Annual Flood Level 2050



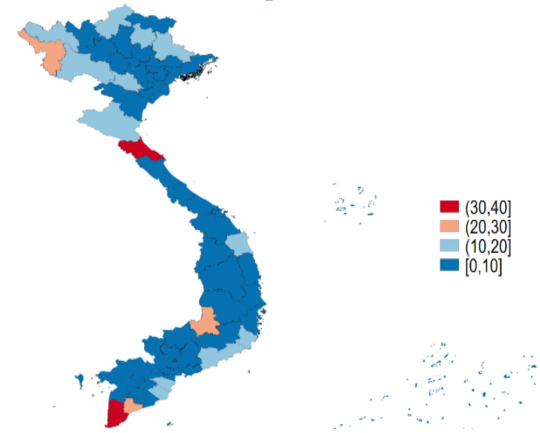
Sources: Climate Central, Coastal Risk Screening Tool https://coastal.climatecentral.org/

[1] Prepared by Alexandre Sollaci.

[2] Projected changes are calculated under RCP 4.5, considered the most likely scenario in the absence of more stringent climate policies (source: World Bank Climate Change Knowledge Portal).

3. Vulnerability to climate change also varies with geography. The most obvious source of this variation is the degree to which households' income depends on agriculture, forestry and fishery sectors, surpassing 30 percent in some provinces. Given the vulnerability of most crops—and in particular rice, a staple crop in Vietnam—to changes in temperature, precipitation, water salinity, and extreme weather, regions where agriculture represents a large share of the population's income are likely to come under significant stress.[3] Additionally, places with fewer resources will have lower adaptive capacity, making them more vulnerable as high poverty rates are typically co-located with environmental risks. The same is true for sections of the population, for example women, who are overrepresented in agriculture (FAO, 2019). Left unchecked, climate change could increase within-country inequality.

Share of Income from Agriculture



Sources: Vietnam Household Living Standards Survey

4. Adapting to climate changes in Vietnam will require accounting for the heterogenous impact of climate change on households, sectors, and regions. Measures include strengthening early warning systems, shoring-up resilience of existing infrastructure assets and services to different climate shocks and developing new infrastructure projects by considering their climate vulnerability (Dabla-Norris et al., 2021). Safety net programs should be explicitly designed to support the capacity of poor and vulnerable households. This involves enhancing post-disaster assistance, closing coverage and delivery gaps, and supporting workers transitioning out of agriculture or relocation from climate hazard prone areas

[3] Urban areas are affected by climate change as well. Temperature increases could be even more pronounced in cities due to heat island effects, leading to adverse health effects, lower productivity, and other issues.

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Annex X. Integration of Capacity Development Assistance in Surveillance

Overview

1. **To set stage for a robust and inclusive recovery, Vietnam should continue to modernize its economic institutions.** Capacity development (CD) from a wide range of partners is being deployed to achieve this goal, including through virtual missions during the pandemic, and forthcoming hybrid and in-person missions as soon as the COVID-19 situation permits.

2. **CD has been well integrated with IMF surveillance.** High-quality CD remains central in strengthening the effective implementation of IMF policy advice and engagement. The main surveillance priorities include modernizing policy frameworks, safeguarding fiscal sustainability, enhancing financial stability, and improving data quality and transparency to help Vietnam transit to the next phase of its development.

3. **The Fund CD assistance focuses on Vietnam's ambitious reform agenda**. IMF CD assistance is playing a key role in Vietnam's gradual approach to modernizing its monetary policy framework via the Forecasting and Policy Analysis System (FPAS). A Financial Sector Stability Review (FSSR) is underway to help enhance financial stability. The IMF has continued supporting the authorities' efforts to strengthen treasury management, tax administration, public debt management, fiscal statistics, accounting, and reporting. IMF technical assistance (TA) will also continue to support the authorities' initiatives to improve the coverage, quality, transparency, and timeliness of statistics. Other priority areas are likely to include AML/CFT, central bank digital currency, cybersecurity, and climate policies. IMF teams will closely cooperate with the World Bank and other partners, as needed, to ensure coherence in recommendations and to avoid duplication of efforts.

Integrating Fund Surveillance and Capacity Development

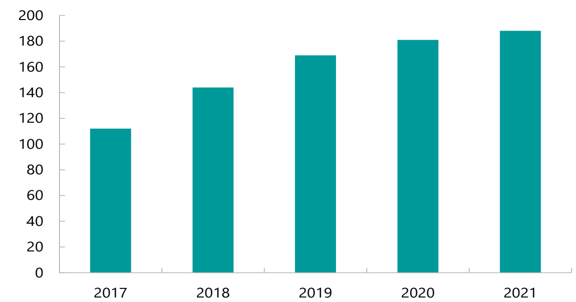
Area	Surveillance Recommendations	Capacity Development Recent Actions/Plans
Monetary policy	Continue to modernize the monetary policy framework.	Phase 1 of the FPAS TA on enhancing analytical and forecasting capacity was successfully completed, while Phase II of integration with policy discussions was launched in early 2022.
Financial Policy	Strengthen the resilience of the banking sector and modernize the macroprudential framework.	An FSSR has started, which will help identify gaps in the financial sector infrastructure, policies, including the macroprudential framework, and statistics.
Tax Administration	Strengthen revenue mobilization by improving tax administration.	After providing TA on formulating the tax administration reform strategy for 2021-2030, the Fund continues to work closely with the General Taxation Department (GTD) on the implementation of the strategy, focusing on compliance risk management (CRM).

Area	Surveillance Recommendations	Capacity Development Recent Actions/Plans
		A new three- year CD program is under discussion with the GTD, with priorities given to further support on CRM, the establishment of a risk management database, progress on international taxation, and improvement of tax collection for a robust recovery.
Treasury management	Improve public financial management and fiscal data accounting and reporting.	The Vietnam State Treasury continued receiving IMF TA advice on implementation of its Modernization Strategy for 2021-30, including internal audit, development of new Chart of Accounts, and improving cash management.
Debt management	Improve public debt management, accounting, and reporting.	IMF has helped improve public debt management and reporting by providing advice on formulation of the 5-year Financial, Public Debt and Repayment Plan for 2021-2025. The Fund will also help Vietnam to assess its legal framework regarding external debt statistics and develop a roadmap for improvement of external debt statistics by currency and residency. TA on debt management organization and operations is expected to be provided to help the MOF design a roadmap for capacity building and enhancing debt management over the medium and long term.
Fiscal risk management	Enhance fiscal risk management capacity.	IMF experts helped MOF officials enhance their fiscal risk management capacity by introducing selected fiscal risk tools developed by the Fund.
Data and statistics	Improve the coverage, quality, transparency, and timeliness of statistics.	IMF TA continues in the following areas: transitioning to Government Financial Statistics Manual 2014 (GFSM 2014) and publishing Vietnam budget data for 2003-2019, in line with GFSM 2014; improving price statistics (service producer price index and residential property price index), national accounts (rebasing and measuring the non-observed economic sectors), monetary and financial data reporting, and external sector statistics.
AML/CFT	AML/CFT framework and execution should be swiftly strengthened in line with the Financial Action Task Force standards to address key country risks.	IMF TA stands ready to help resolve gaps identified in the APG mutual assessment.

Annex XI. Development of the Fintech and Crypto Sectors[1]

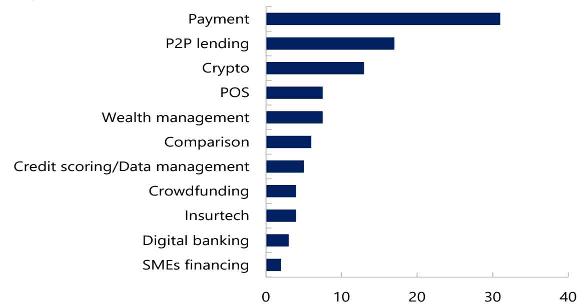
1. **Vietnam is experiencing a rapid digital transformation and the Fintech ecosystem has surged in recent years.**[2] The number of Fintech companies has grown by 67 percent in the past 4 years. The leading fintech segments in Vietnam are digital payments, peer-to-peer (P2P) lending, as well as the crypto asset sector. Digital payments (digital commerce payments, digital remittances, and mobile POS payments), in particular, have been on an increasing trend both in terms of total transactions value and number of users. In 2020, Vietnam's e-commerce market value reached almost USD 12 billion—2.5 percent of GDP (World Bank, 2021). Further, the value of transactions in the sectors of digital payments, personal finance, alternative financing, and alternative lending combined increased from USD 12 billion in 2019 to 18 billion in 2021.[3]

Number of Operating Fintech Companies in Vietnam
(2017 - September 2021)



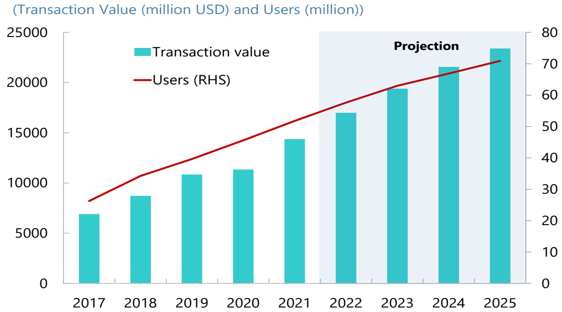
Sources: Statista

Fintech Startups by Category, 2020
(In percent)



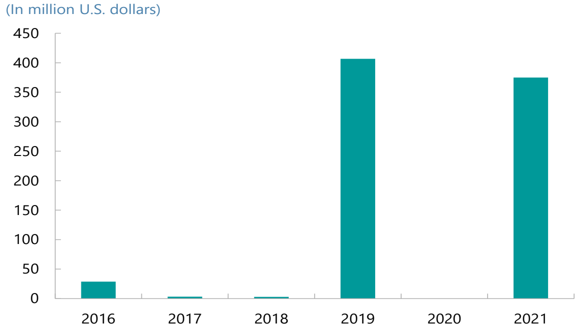
Sources: Statista

Digital Payments
(Transaction Value (million USD) and Users (million))



Sources: Statista

Total Funding Value of Fintech Deals
(In million U.S. dollars)



Sources: Statista

[1] Prepared by Antoine Arnoud.

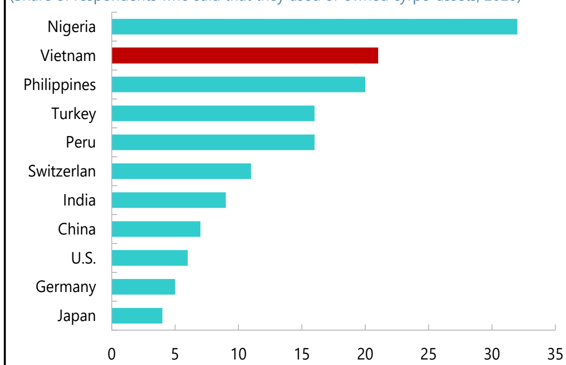
[2] The term Fintech includes companies that develop innovative technological solutions in financial sectors such as online and mobile payment, financial data, financial management, alternative finance, and crypto assets.

[3] Data provided by Statista from United Overseas Bank; PwC; Singapore FinTech Association; Tracxn Technologies; Statista surveys.

2. The country has characteristics suitable to the rapid development of the fintech sector. Vietnam has a young population, with 37 percent of the population 24-year-old or younger. At 80 percent of the adult population, the country also has one of the region's highest mobile phone penetration rates. Internet connectivity also appears extremely competitive in terms of cost, as access to the internet is cheaper than in most of its peers. However, financial inclusion was one of the lowest in the world: only 30 percent of the population had access to bank services in 2017, the second lowest rate globally, and the ratio of bank branches per capita (4 per 100,000 adults in 2020) was also relatively low (World Bank, 2021; IMF, 2020). This combination makes it appealing for companies willing to tap the market of unbanked individuals with financial mobile services. Vietnamese authorities have also shown support for fintech development in recent years, with the introduction of a regulatory sandbox and granting e-wallet licenses. The lack of legacy infrastructure such as credit card payment networks, coupled with an efficient IT network, has also helped increase the speed of adoption of new fintech technologies through leapfrogging.[4]

3. According to some sources, the usage or ownership of crypto assets in Vietnam is one of the highest in the world. As of 2020, Vietnam ranked second in an online survey examining the rate of adoption of crypto assets, with 21 percent of respondents stating that they used or owned crypto assets in 2020. Although the survey might be biased towards households with internet connections (two thirds of households), who are more likely to hold crypto assets, it indicates that Vietnam lies in the higher range of the distribution. The lack of clear legislation on crypto asset ownership and trading is therefore an issue that needs to be addressed by the authorities.

Crypto-assets Usage and Ownership
(Share of respondents who said that they used or owned cyrpo-assets, 2020)



Sources: Statista

4. The COVID-19 crisis has propelled the country to move even further towards the adoption of fintech solutions, especially online payments. Historically a country with high use of cash, Vietnam has seen a significant growth of e-commerce and e-wallet payments during the pandemic (see also Annex IV). Lockdowns have convinced many previously reticent store owners to reach customers through the internet and to adopt mobile wallets for online payments. It is estimated that 53 percent of the population has shopped online using social networking platforms, such as Facebook and Zalo, or e-commerce platforms, such as Lazada, Shopee, and Tiki.

5. The SBV is encouraging credit institutions and the banking sector to enhance its understanding of digitalization, associated advantages and risks, and to enhance cybersecurity. In its directive 02/2022, the SBV called for greater cooperation between the private

[4] The government's mobile money pilot scheme, launched by Decision 316 in March 2021, should also help consolidate this trend by targeting Vietnam's large population of unbanked customers.

sector, SBV-related entities, and ministries to promulgate the access to databases that can be used for enhanced Know Your Customer verification, and the use of technologies such as cloud computing, big data analysis, machine learning, and biometric authentication for new banking products and for risk management. The directive encouraged SBV-related entities to upgrade the interbank payment, credit information, and clearing systems. Credit institutions are required to report incidents, cybersecurity threats, or suspicious transactions to the authorities. Finally, the SBV is examining existing legislation to propose a regulatory sandbox for fintech solutions in the banking sector.

6. Although fintech solutions provide opportunities to improve financial inclusion, their rapid development presents risks. These especially pertain to consumer protection, with risks of fraud on decentralized finance platforms, AML/CFT issues, and financial integrity. Although online payments are already regulated as Intermediate Payment Services, other Fintech activities, especially crypto activities and P2P lending activities, still lack a clear and comprehensive legislation.

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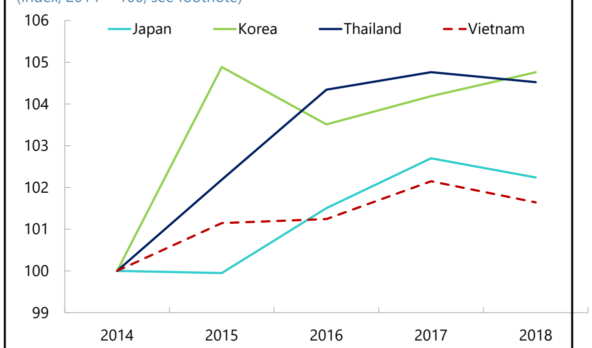
Annex XII. Innovation and Productivity in Vietnam[1]

Vietnam's economy has grown at a rapid pace over the last decade, but productivity growth has played a limited role in this expansion. Increasing productivity requires more innovation, including through greater digitalization of production processes, investments in human capital and worker skills, removal of barriers to firm growth, and reduction of resource misallocation.

1. **Despite rapid and sustained economic growth in recent years, total factor productivity (TFP) in Vietnam has lagged**. Prior to the pandemic, Vietnam's GDP grew by an average of 6.5 percent each year. However, this expansion was driven primarily by low-cost and labor-intensive manufacturing, with TFP growth playing a small role in the country's economic success (World Bank, 2020). Average firm-level TFP grew by less than 2 percent between 2014 and 2018 (panel chart), below the levels seen in selected Asian countries.[2]

Evolution of Aggregate TFP
(Index, 2014 = 100; see footnote)

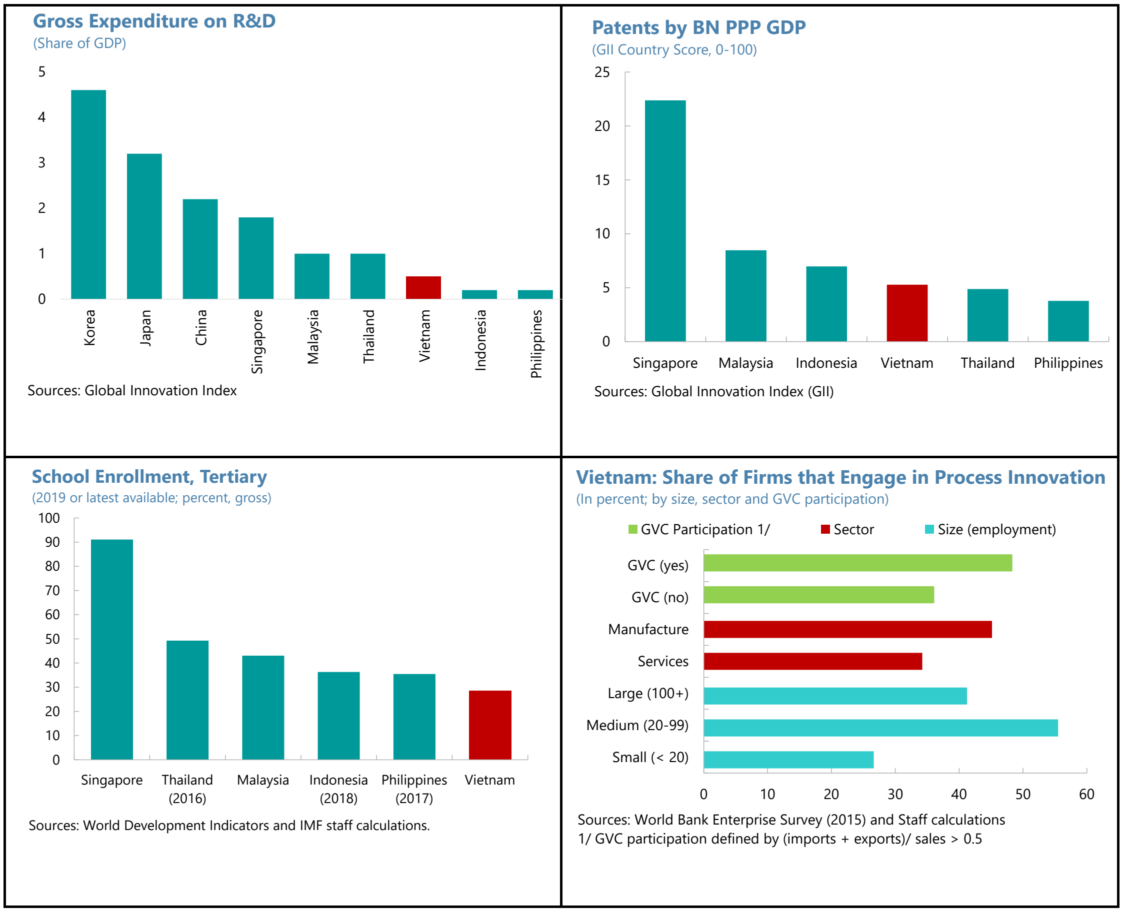


Sources: Orbis and IMF Staff calculations.

2. **Improving TFP growth requires more innovation, broadly understood.** Expenditure on R&D as a share of GDP and patent applications per person are broadly in line with Vietnam's level of development. However, small business participation in the digital economy, and digital skills acquisition among the general population remains low compared to peers. Only 40 percent of businesses report adequate information and communications technology (ICT) skills to use and maintain their digital systems; R&D is mostly conducted by government institutions, which suffer from low quality and relevance (World Bank, 2020). Low human capital and skill mismatches in the labor market remain a concern (IMF, 2020). Despite greater integration with global value chains (GVCs), data from the Firm-level Adoption of Technology survey of Vietnamese firms also shows that most firms are at a significant distance from the technological frontier (Cirera et al., 2020), reflecting weak technology diffusion. Finally, the extent of process innovation is considerably weaker in small firms, compared to medium or large companies and in domestic firms.

[1] Prepared by Alexandre Sollaci.

[2] TFP is calculated using a firm-level panel from the Orbis dataset. It is estimated following the method proposed by Ackerberg, Caves, and Frazer (2015), and implemented at the country-by-sector (NACE-4) level (sectors with less than 300 observations removed to improve statistical accuracy). The TFP index is constructed in the following way: let $\ln(TFP_{cst})$ be the average log-TFP in each country-sector-year; then $\text{Index}(TFP_{ct}) = (1/N_s)\sum_s 100 \times ln(TFP_{cst}) \,/\, ln(TFP_{cst})|_{t=2014}$. That is, the TFP index is the cross-sectoral average of the normalized $\ln(TFP_{cst})$, where the normalization is done at the sector level to account for differences in the sectoral composition of countries' economies.



3. **While innovation can foster productivity growth for frontier firms, econometric analysis suggests that exposure to external markets and digitalization could help close productivity gaps**. The drivers of TFP growth for frontier and non-frontier firms in Vietnam and a broader sample of Asian countries are empirically estimated using data from Orbis and Zephyr (see also IMF, forthcoming). Our results (Table 1) point to positive spillovers from the TFP growth of frontier firms,[3] as well as an initially positive (but non-linear, and eventually negative) effect of the TFP gap, measured by a firm's distance to the frontier. External exposure through exports and FDI also increase productivity growth, with non-frontier firms benefitting more in Vietnam than in other Asian countries. Higher digitalization, proxied by the ratio of intangible to tangible capital, increases firm-level productivity growth in the full sample.[4] These results indicate that greater access to digital services in Vietnam is important for upgrading participation

[3] Defined as those on the top 10 percent of their sectoral distribution.

[4] Including firms in Australia, China, Japan, Korea, Malaysia, New Zealand, Philippines, Thailand, and Vietnam.

in GVCs and domestic connections to high-tech industries. Developing stronger linkages between exporting firms and domestic suppliers could also help close productivity gaps.

4. Productivity dispersion across firms drags down productivity growth, pointing to an important role for structural policies to narrow gaps. The estimates reported in Table 1 suggest that productivity dispersion, measured by the standard deviation of log-productivity within sectors—an indicator of resource misallocation—has a large and negative impact on firm-level productivity growth. This correlation implies that firms in sectors with higher misallocation grow more slowly, as resources are locked in potentially unproductive firms. It also reflects the presence of distortions in the Vietnamese economy that create barriers to entry for new (and productive) firms, and hamper expansion of SMEs. Distortions include longstanding challenges of unequal access to land and finance and weaknesses in the business environment. Removing barriers to growth and reducing resource misallocation are thus key to fostering innovation and productivity.

Table 1. Vietnam: Regression of Change in Firm-level TFP Growth on Firm and Sector Characteristics

Dependent Variable: Change in Firm TFP growth	Group	(1) Asia	(2) Asia	(3) Asia	(4) VNM	(5) VNM	(6) VNM
Δ Frontier ln(TFP)	Top	0.4345***	0.4346***	0.1476***	0.4663***	0.4665***	0.1644***
		(0.0112)	(0.0112)	(0.0115)	(0.0306)	(0.0306)	(0.0284)
	Middle	0.4177***	0.4176***	0.1253***	0.4472***	0.4472***	0.1385***
		(0.0101)	(0.0101)	(0.0099)	(0.0306)	(0.0307)	(0.0293)
	Bottom	0.4176***	0.4183***	0.1162***	0.4888***	0.4888***	0.1634***
		(0.0119)	(0.0119)	(0.0100)	(0.0330)	(0.0330)	(0.0314)
ln(TFP) Gap	Top	0.8224***	0.8246***	0.9685***	0.8519***	0.8521***	0.9891***
		(0.0237)	(0.0236)	(0.0112)	(0.0699)	(0.0699)	(0.0271)
	Middle	0.8708***	0.8725***	0.9811***	0.8877***	0.8877***	0.9752***
		(0.0204)	(0.0204)	(0.0124)	(0.0533)	(0.0532)	(0.0298)
	Bottom	0.8937***	0.8952***	1.0639***	0.9059***	0.9058***	1.0961***
		(0.0193)	(0.0193)	(0.0177)	(0.0435)	(0.0434)	(0.0259)
[ln(TFP) Gap]^2	Top	-0.0117	-0.0119	-0.0063	-0.0230	-0.0230	-0.0361
		(0.0124)	(0.0124)	(0.0062)	(0.0365)	(0.0364)	(0.0240)
	Middle	-0.0244**	-0.0243**	-0.0105*	-0.0259	-0.0259	-0.0295**
		(0.0099)	(0.0099)	(0.0058)	(0.0216)	(0.0215)	(0.0140)
	Bottom	-0.0204**	-0.0203**	-0.0129**	-0.0169	-0.0169	-0.0305**
		(0.0093)	(0.0093)	(0.0061)	(0.0149)	(0.0149)	(0.0118)
International Exposure	Top		0.0074**	0.0072**		0.0149	0.0003
			(0.0033)	(0.0033)		(0.0238)	(0.0179)
	Middle		0.0033	0.0020		0.0415	0.0416
			(0.0024)	(0.0020)		(0.0488)	(0.0332)
	Bottom		-0.0037	-0.0033		0.6465***	0.6559***
			(0.0024)	(0.0022)		(0.0060)	(0.0025)
ihs(intangible K ratio)	Top		0.0028**	0.0047***		-0.0002	0.0010
			(0.0011)	(0.0011)		(0.0031)	(0.0030)
	Middle		0.0038***	0.0046***		0.0018	0.0031
			(0.0013)	(0.0013)		(0.0050)	(0.0048)
	Bottom		0.0052**	0.0065***		0.0074	0.0116
			(0.0023)	(0.0021)		(0.0075)	(0.0080)
Std Dev[ln(TFP)]	Top			-2.5610***			-2.5039***
				(0.0772)			(0.1477)
	Middle			-2.5639***			-2.4572***
				(0.0686)			(0.1599)
	Bottom			-2.7786***			-2.7739***
				(0.0663)			(0.1598)
Observations		2497294	2491854	2489591	407405	407405	406894
Within R-squared		0.3346	0.3350	0.3651	0.3319	0.3319	0.3522

Firms are divided into three groups depending on their position in the TFP distribution of their sector: top firms (60-90 percentiles), middle firms (30-60 percentiles), and bottom firms (below 30 percentile). All specifications include a firm fixed effect and a country-by-year fixed effect. Standard errors are shown in parenthesis and clustered at the country-sector (4-digit) level. *, ** and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Note: *ihs* represents the inverse hyperbolic sine function, $ihs\,(x) = ln\left(x + \sqrt{1 + x^2}\right)$.

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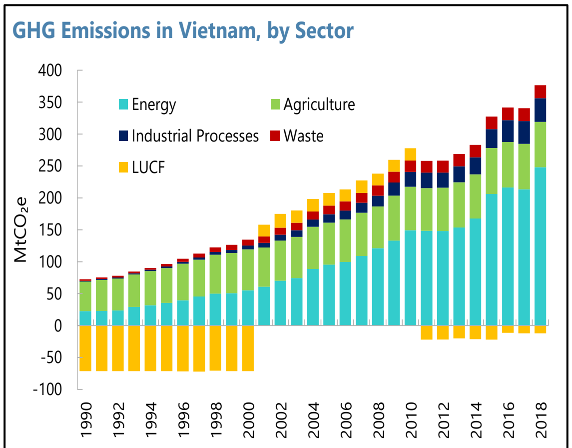
Annex XIII. Evaluating Options for Climate Mitigation in Vietnam[1]

This annex takes stock of Vietnam's climate mitigation targets and discusses the implications of using an emissions trading system (ETS) and other complementary policies to reach these targets.

1. **Vietnam's rapid economic growth, urbanization, and industrialization over the last three decades has created significant greenhouse gas (GHG) emissions.** GHG emissions have been steadily increasing, with the coal-dependent energy sector representing the bulk of total emissions, followed by agriculture and industrial processes (Figure 1). Vietnam's GHG emissions represent 0.7 percent of global emissions and are relatively low on a per capita basis by regional standards. Nevertheless, carbon intensity, as measured by the ratio of emissions to GDP, is relatively high given the importance of energy-intensive manufacturing in the country's development strategy.

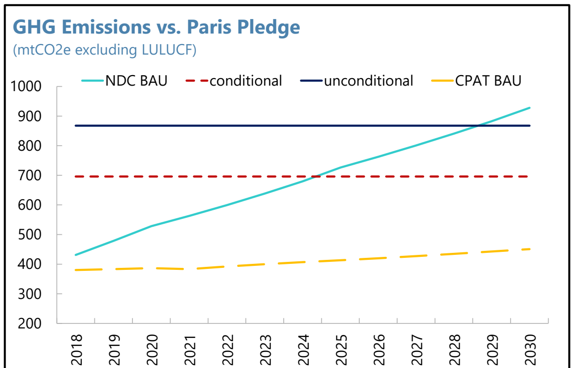


Sources: World Resources Institute CAIT Climate Data.

2. **Vietnam has committed to ambitious carbon reduction goals.** At the 2021 UN Climate Change Conference (COP26), the Prime Minister announced the intention to achieve net-zero emissions by 2050. Vietnam also committed to end all investment in new coal power generation, scale up deployment of clean power generation, phase out coal power by the 2040s, and increase deployment of green technologies.

3. **Climate mitigation targets have been recently updated, but are based on outdated assumptions, and will likely be overachieved without any significant climate action.** Vietnam submitted an updated Nationally Determined Contribution (NDC) in 2020.

- The updated 2020 NDC targets the reduction of GHG emissions compared to the business as usual (BAU) scenario by 2030–in the energy, agriculture, land use, land-use change and forestry, waste and industrial processes sectors–by 9 percent unconditionally (with domestic resources) and 27 percent conditionally (with international support).



Sources: Staff calculations based on Authorities' 2020 NDC and the IMF/WB Carbon Pricing Assessment Tool (CPAT).

[1] Prepared by Amr Hosny.

- The NDC targets are based on outdated assumptions and will likely require no additional effort compared to an updated BAU. Specifically, the 2020 BAU scenario and the associated unconditional and conditional targets use 2014 as base year and project the 2014-2030 path using a bottom-up sectoral approach that uses overly optimistic growth assumptions. This produces an inflated NDC BAU path (blue line; Figure 2), and consequently inflated unconditional and conditional 2030 targets.

- Staff estimates using the IMF/WB Carbon Pricing Assessment Tool (CPAT) of an updated and more realistic baseline, using (i) 2018 actual GHG emissions as starting point (instead of 2014) and (ii) updated growth projections (incorporating the impact of COVID-19 in 2020-21), suggest a more dampened BAU scenario with more realistic GHG emissions (yellow line; Figure 2).[2] The NDC targets are thus expected to be vastly overachieved without any climate action. This result is consistent with other international estimates, including the Climate Action Tracker (CAT), which suggests that a Paris Agreement fair share target of 350 MtCO2e by 2030 would ensure real progress in climate action for Vietnam.

4. Vietnam envisages introducing an ETS to achieve its emissions targets alongside providing incentives for renewables. The 2020 revised Law on Environmental Protection establishes a mandate for the ministries of environment and finance to design a domestic ETS and a crediting mechanism that encompass a cap, a method of allowance allocation, and domestic and international offsets. A pilot ETS is expected to start by 2025 and to become fully operational by 2027.

Illustrative Scenario of an ETS for Vietnam

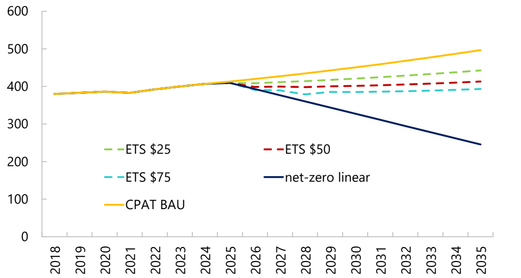
5. The CPAT tool is used to study how an ETS can help Vietnam achieve its mitigation targets. The impact of carbon pricing (in this case, an ETS) on fuel use and emissions is assessed by examining its proportionate impact on future fuel prices and consumption in different sectors. Carbon revenues from the ETS are generated based on the carbon price and carbon emissions per fuel type, adjusted for the ETS coverage. These revenues in turn can be recycled into tax reductions or current/capital spending or transfers, with different proportionate impacts on future GDP and emissions.

6. Illustrative simulations show that an ETS can reduce emissions relative to a BAU baseline. We assume an ETS is introduced in 2025 (consistent with the intended pilot timeline) with a starting price of $5/tCO2 that is gradually increased thereafter. An ETS with a carbon price that gradually reaches $25, $50, and $75/tCO2 emissions in 2030 can reduce emissions in Vietnam by 7, 11, and 15 percent below the model-based BAU levels in 2030 (Figure 3). A comprehensive package of reforms, including sectoral policies and a larger carbon price, would obviously be needed to achieve the announced net-zero emissions target by 2050. The ETS is assumed to cover around 70 percent of the country’s total CO2 emissions (Figure 4) by targeting the power and industry sectors only (consistent

[2] The CPAT is a reduced form energy-macro model that projects emissions and macro-fiscal outcomes under different carbon pricing options. It uses a suite of inputs and assumptions to project GHG emissions under a BAU baseline and alternative carbon pricing options.

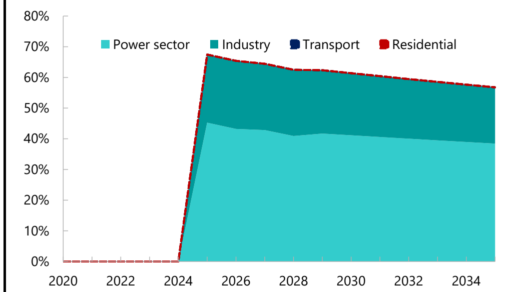
with observed cross-country experiences). In addition, with current lack of market pricing for many fossil fuels, some end-user prices will not be affected by carbon pricing measures without additional reforms.

GHG emissions under BAU and ETS
(mtCO2e excluding LULUCF)



Sources: Staff calculations based on IMF/WB Carbon Pricing Assessment Tool (CPAT).

ETS Coverage
(CO2 emissions covered as % of national total)



Sources: Staff calculations based on IMF/WB Carbon Pricing Assessment Tool (CPAT).

7. **A carbon tax could have a slightly larger impact on emissions.**[3] Instead of an ETS, illustrative scenarios (not shown) using a carbon tax starting at $5/tCO2 and gradually increasing to $25, $50, and $75/tCO2 emissions would reduce emissions in Vietnam by 8, 13, and 17 percent below the model-based BAU levels in 2030. This is due to the assumed broader coverage of emissions under a carbon tax.

8. **Simulations suggest an ETS can generate significant fiscal revenues if allowances are set appropriately, which could be recycled to raise medium-term GDP.**

- **Revenues:** An ETS with a carbon price that gradually reaches $25, $50, and $75/tCO2 emissions in 2030 would raise significant revenues of 1.1, 1.7, and 2.2 percent of GDP in 2030 (Figure 5). This revenue can then be usefully recycled for growth and distributional purposes. In this simulation, we assume revenues are fully recycled, whereby half goes to new public investments, a quarter to current spending and a quarter to cash transfers.

- **Growth:** Carbon pricing could have an initial short-term negative impact on GDP, as higher input prices initially disrupt economic activity. The negative effect on growth can be more than compensated depending on how carbon revenues are used. Simulations suggest net GDP growth gains of about 0.33 percentage points above the BAU baseline in 2035, mostly coming from increased public investments due to their higher assumed multiplier effect (Figure 5). Given the initial costs, the introduction of the ETS should be carefully timed to avoid undermining the post-pandemic recovery.

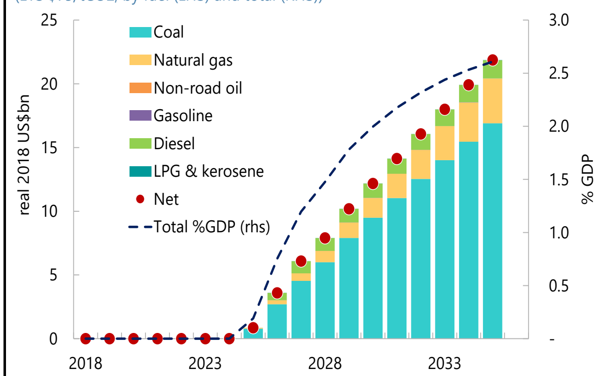
- **Emissions:** Higher medium-term GDP growth (from recycled revenues) also implies higher emissions. In the case of this simulation exercise for Vietnam, the additional change in emissions is

[3] A carbon tax is a tax on the supply of fossil fuels in proportion to their carbon content. In general, carbon taxes are more comprehensive in their coverage, provide greater price stability, can generate more revenues, and are easier to administer than an ETS.

minimal given the slight net gain in growth. Still, balancing this trade-off may be an important decision for policymakers.

Additional Fiscal Revenues Raised

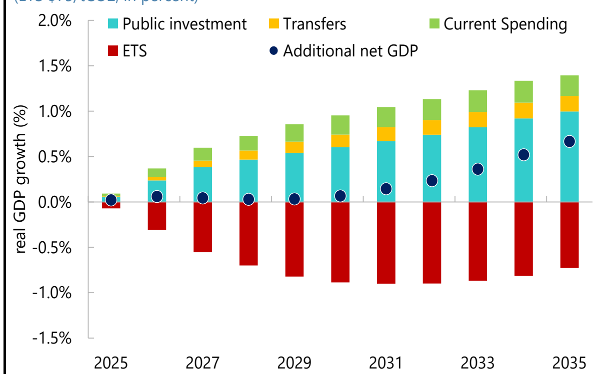
(ETS $75/tCO2, by fuel (LHS) and total (RHS))



Sources: Staff calculations based on IMF/WB Carbon Pricing Assessment Tool (CPAT).

Additional Net GDP Growth Impact

(ETS $75/tCO2, in percent)



Sources: Staff calculations based on IMF/WB Carbon Pricing Assessment Tool (CPAT).

9. **The simulations suggest that an ETS alone may not be sufficient to produce a path towards net-zero by 2050, and additional sectoral policies are needed.** Vietnam has issued several sectoral strategies, including development strategies on renewable energy, deforestation, transport, and construction material. Relevant legislation also include the law on energy efficiency and the law on environment protection. However, a translation of these strategies into actions with annual budgetary implications is currently missing. Proposed new investments in green technologies will take time to produce tangible results, as the demand for energy and transportation by other sectors—including some highly-carbon intensive industrial sectors—and electricity demand will continue to increase rapidly in the next two decades (World Bank, forthcoming CCDR), and the dependance on fossil fuels will remain high at least up to 2030. Potential acceptability constraints on carbon pricing also suggest that sectoral instruments, such as renewable energy and transport decarbonization initiatives, have an important role to play.