

Have our First Responses for COVID-19 eased Financial Markets? Case of the Philippines

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A B S T R A C T

The COVID-19 pandemic has adversely affected the financial markets of the world. In this paper, we zero in on the Philippine financial markets and determine whether the initial policy responses of the national government and the domestic bourse were able to quell the uncertainty and ease the financial markets. In evaluating the effect of these measures, we consider a simple generalized Chow's test to determine if key policies and market events were able to significantly affect a slew financial market variables representing the FX market, the equities market, the bond market, and the cost of borrowing. The results suggest that the initial monetary and fiscal actions have been able to ease the financial markets as a modest rebound in the equities market, an appreciation of the Peso, and a lower cost of borrowing and lending have been observed for the period in review.

Policy Recommendations

Government may undertake the following polices to potentially further strengthen the recovery of the financial markets especially as the country transits to more relaxed quarantine measures.

- Continue implementing targeted fiscal lending to households to ensure that domestic consumption would not be severely affected post community quarantine measures.
- Support MSMEs by granting zero (or even negative) interest loans to ensure business continuity and employment continuity support so as to lessen the frictional unemployment post COVID.
- The BSP still has enough policy room as key rates are still above 2 percent and the reserve requirement are still relatively high compared to other emerging market economies. The central bank can respond as necessary depending on how conditions develop over the next few weeks.
- Undertake measures to restart the demand side of the economy by passing key bills such as the pending CITIRA which can better increase firm performance and overall contribution domestically due to lower taxes and certain other aspects. Prioritizing key Build-Build-Build projects may also be done, especially in low-risk areas so as to increase domestic employment and investment.

Background

To say that the COVID-19 pandemic has caused a massive economic downturn is an understatement. Many economists believe that the impact of the pandemic will be far longer lasting than the impact of the recent global financial crisis (GFC) prompting a true shift in consumer behavior and a proper rethink about the conduct of economic activity. Suddenly, social distancing and work from home arrangement have become the norm and may continue to be so for a longer time. What is evident is that most government institutions and central banks have approached this pandemic in a very similar regard to how they responded to the GFC. That is, relying on their existing policy tools and other fiscal measures to keep the economy buoyant in turbulent times. However, to alleviate what is considered by many to be predominantly a health crisis, unconventional policy tools may prove to be more effective. Regardless, the need to reinforce confidence in the ability of a country to provide enough liquidity and to ensure a lower cost of borrowing is imperative for an economic recovery.

This study aims to see if the initial measures done by government agencies have had some effect on easing the financial markets. By an easing, this means that banks are more likely to lend to the public, the equities market has recovered slightly and has lower volatility, and a general confidence in the future of the financial markets is felt. This paper makes use of a generalized Chow's test to see whether key financial market variables had eased off post the measures of the national government. The financial market variables implored will be the Philippine Stock Exchange index (PSEi) to represent the equities market, the USD/Php Exchange Rate to represent the foreign exchange market, the Interbank Call Loan Rate (IBCL) to represent the cost of borrowing, and the JP Morgan Emerging Bond Market Index for the Philippines (EMBI-PH) to represent the bond market. Numerous measures will be taken into account which are listed in *Table 1*. Overlapping of these measures shall also be explored in an iteration.

Event	Date (2020)	Policy Action/Intervention
1	March 16	The National Government unveils the initial 27.1 billion Peso spending plan for the COVID-19 Response Metro Manila is placed under Enhanced Community Quarantine
2	March 24 - 28	BSP's initial 50 basis point reduction of the RRP and the asset purchases from the Bureau of the Treasury and the announcement of the Bayanihan to Heal and One Act taking effect immediately. IATF approves a 200 billion peso subsidy program for 18 million Filipinos Institution and Rollout of the Social Amelioration Program (SAP) and Formalization of the Bayanihan to Heal as One Act
3	April 10 - 13	MSME Cash Injection through the Small Business Wage Subsidy Program "Bayanihan Grants" are given to LGUs to sustain their relief efforts World Bank Approves a \$500 million loan for the Philippines' COVID19 Response
4	May 5 - 7	State Owned Corporations begin to remit Php 130 Billion to fight COVID19 Additional donations from international governments and other agencies.

Table 1. *Identified National Government Measures*

Table 1 highlights some key events and policies undertaken by the government in response to the pandemic. From the monetary side, the Bangko Sentral ng Pilipinas (BSP) has lowered its main policy rate and has been fairly aggressive in ensuring enough domestic liquidity during the period of the crisis. On the fiscal side, the DOF, NEDA, and other agencies embarked on the Bayanihan to Heal as One Act which includes a Social Amelioration Program, a fairly comprehensive MSME support system, free interbank transfers, waived

fees, and many more initiatives meant to ease the burden of the pandemic economically. *Figure 1* graphs out the different financial market indicators and identifies the events listed in *Table 1*.

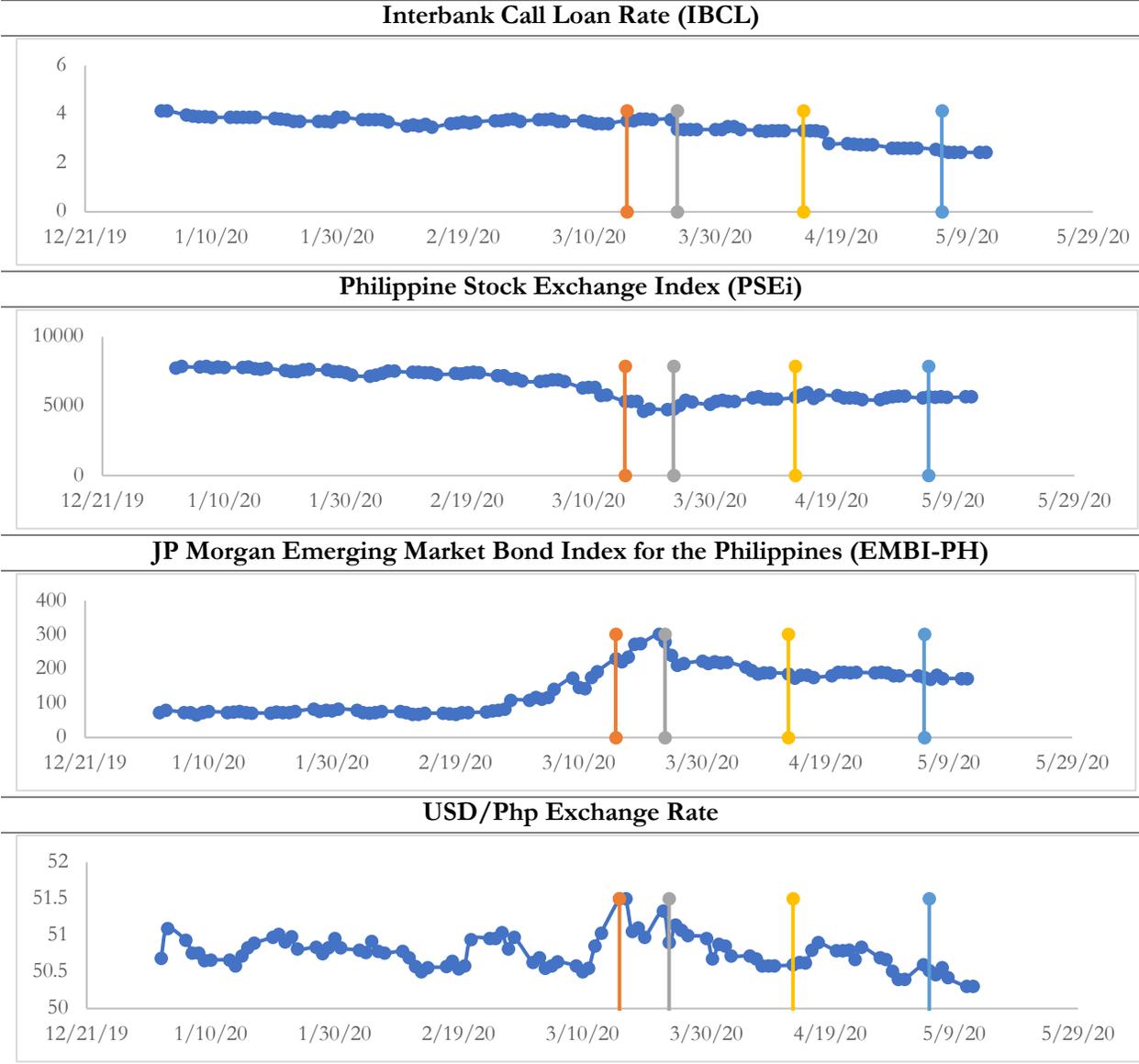


Figure 1. Showing the Financial Market Indicators

The orange line represents event 1, the gray line represents event 2, the yellow line represents event 3, and the blue line represents event 4. Just a quick graphical inspection already suggests that the specific events highlighted have been able to affect these indicators in some manner. From the second week of February to early March, it can be seen that the financial market indicators were heavily affected by the pandemic. This period was before much actions to avert the spread of the virus or to address pressing uncertainties associated with the pandemic. The downward reaction to the pandemic is expected as investors are uncertain over short and medium term returns in addition to supply and demand side constraints which will spring up should containment measures be put in place. As the pandemic continued to escalate globally changing epicenters from China (the origin of the virus) to Europe and to (now) the United States, the pandemic also escalated

domestically with the reported cases reaching over 11,000 as of time of writing. The relative uncertainty caused by the imposition of an enhanced community quarantine immediately caused the equities market to plummet, reaching the 4000 level briefly before rebounding modestly. This is attributable to uncertainty and the weakness caused by the imposition of the ECQ on domestic firms, most especially MSMEs, who will likely bear the most burden due to the lockdown measures. Moreover, a weakness in consumer demand given the closure of non-essential establishments will also affect domestic financial conditions in their short and medium term with a likely shift in the long term as consumer behavior may change post the pandemic. A fall in the domestic currency is also expected initially as investors may opt to substitute their reserves for more foreign currency, especially in markets where longer-term safe investments yield higher returns or are safer vis-à-vis emerging market economies. This also negatively affects the bond yield of local government bonds in the short and medium term.

Results

To determine if the proposed measures had eased the financial markets, one empirical way to do this simply is to conduct a Chow's test which tests for time linear restrictions and structural breaks. Both individual event Chow's test and a generalized Chow's test were conducted, the results of which are seen in *Table 2* and *Table 3*.

	IBCL		PSEi		EMBI-PH		Exchange Rate	
	Coefficient	Chow's Test Stat	Coefficient	Chow's Test Stat	Coefficient	Chow's Test Stat	Coefficient	Chow's Test Stat
<i>Event 1</i>	-0.61*** (-4.96)	24.56***	-1002.72*** (34.94)	25.86***	60.83*** (5.44)	29.58***	0.10 (1.09)	1.19
<i>Event 2</i>	-0.74*** (-6.7)	45.00***	-393.961*** (18.81)	1.58	9.49 (0.43)	0.63	-0.19** (-2.54)	6.46**
<i>Event 3</i>	-0.82*** (-7.0)	48.66***	-5.411 (-0.02)	0.00	-17.49 (-1.59)	2.54	-0.24*** (-3.61)	13.00***
<i>Event 4</i>	-0.87*** (-8.5)	72.61***	6.63 (0.05)	0.00	-20.12 (-1.17)	1.37	-0.36*** (-3.38)	11.43***

Table 2. *Chow's Test Results (Independent Events)¹*

	IBCL	PSEi	EMBI-PH	Exchange Rate
<i>Event 1</i>	0.07** (2.27)	-1432.39*** (78.14)	113.500*** (10.39)	0.58*** (6.64)
<i>Event 2</i>	-0.40*** (-18.78)	315.70** (2.48)	-41.00*** (-3.97)	-0.43*** (-5.20)
<i>Event 3</i>	-0.52*** (-4.67)	300.305*** (3.14)	-30.56*** (-3.94)	-0.14** (-2.29)
<i>Event 4</i>	-0.41*** (-3.63)	12.36 (0.09)	-10.60 (-1.05)	-0.24 (-2.99)
<i>Chow's Test F-Statistic</i>	2450.348***	37.34***	33.15***	20.10***

Table 3. *Generalized Chow's Test Results*

¹ Both Table 2 and 3 show the results of the implemented methodology. * indicates a 90% significance, ** indicates a 95% significance, and *** indicates a 99% significance. Numbers in parenthesis represents the respective z-statistics (Table 2) and t-statistics (Table 3).

Table 2 and *Table 3* contain the results of the methodology employed to determine how the financial market indicators have responded to the measures undertaken by the national government in response to the pandemic. Based on the results, it can be seen that the IBCL had decreased significantly, the PSEi shows a modest comeback, the EMBI shows a slight decline, and the exchange rate shows a modest appreciation.

The decline in the IBCL² suggests that banks are willing to lend to other banks at a lower rate. This suggests that the measures undertaken were able to lower this lending rate. This suggests that banks seem less risk averse vis-à-vis the start of the pandemic in which the IBCL had shot up. Overall, the lowering of the BSP's main policy rate and the BOTr debt purchases were able to ensure confidence which subsequently lowered the rate. While the coefficient on event 3 which was more fiscal in nature was higher, we can attribute this to the typical lag of monetary policy which doesn't sink in overnight but rather influences expectations more. During the height of the uncertainty amid the pandemic, the IBCL settled at around 3.8 percent but declined to 2.4 percent as of the second week of May. This means that the IBCL decreased by almost a third suggesting that banks are relatively more willing to lend out vis-à-vis before the measures were undertaken. This is key to ensuring adequate domestic liquidity and lower cost of borrowing and lending in the domestic economy.

On the equities side, the PSEi was seen to have a modest recovery during the early weeks of April. This rebound is likely due to the fiscal assurances during the first week of April as referenced in *Table 3*. While the index is still lower overall, it has recovered from a low in the 4000-point level rising to the mid 5000 level in just under a month. It appears that guarantees on how the community quarantines would operate and how firms would be supported by the market were enough to quell the massive sell-off which prompted the index to utilize the "circuit breaker" on numerous occasions during the height of the pandemic.

Turning to the bond market, the EMBI for the Philippines has decreased moderately. This decline is in line with the similar declines across different emerging market economies as investor's risk appetite on purchasing sovereign debt has declined and has shifted to relatively safer debt securities with lesser risk albeit lower returns. While a slight increase in the EMBI was seen in the initial response, subsequent responses made were unable to raise the index. While it is attributable partly to the responses, it is reasonable to assert that external pressures are likely at play with regards to the expected returns of an emerging market's debt securities, even more so than domestic actions.

Lastly, on the exchange rate, it appears that the Peso had appreciated modestly against the US Dollar. This suggests that confidence in the Peso has strengthened and that investors are not rushing to swap to more volume fiat currencies like the US Dollar. This is likely due to the combined fiscal and monetary assurances during the period in review which ensures enough domestic liquidity and stimulus to keep the economy afloat.

Conclusion

In summary, the initial actions of the government were sufficient to ease the conditions of the financial markets after the height of the pandemic. These policy actions were able to ensure or at least encourage domestic confidence in our markets and assure that enough liquidity was available for everyone. This further translated to lower borrowing rates and an appreciating peso. Overall, continued policy actions similar to these are necessary to ensure a proper recovery of the domestic economy reeling from the effect of COVID-19

² The Interbank Call Loan Rate (IBCL) is the rate at which banks lend to other banks.