CHAPTER 6

DISTRIBUTIONAL IMPACT OF MONETARY POLICY IN SRI LANKA

By 
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1. Introduction

The impact of monetary policy on income inequality has recently come to the attention of the academia and policy makers. At the same time, growing inequality, particularly in advanced economies, has attracted the attention of central bankers (Yellen, 2014; Bernanke, 2015; Draghi, 2016). As summarized by Furceriab, Loungania and Zdzienicka (2018), extensive literature has suggested many causes of inequality such as the technological progress, demographics, globalization and the structure of the labor market and more recently, monetary policy has also been added to this list as a possible cause. As argued by Romer and Romer (1998), one pertinent question that can be raised is whether monetary policy can be used as a tool to influence inequality, which in turn affects poverty levels of an economy.

The global financial crisis and the subsequent policy responses and developments, particularly quantitative easing remain as one of the key reasons behind increased attention on the monetary policy – inequality nexus. For example, it is argued that a prolonged reduction in policy interest rates can generate an income loss for savers holding interest-bearing assets, or that expansionary measures supporting financial asset prices are beneficial especially for the savers holding financial assets. In fact, some studies point to the negative impact of the accommodative monetary policy stance in many advanced economies on income and wealth distribution (Acemoglu and Johnson, 2012; Stiglitz, 2015) and evidence suggests that exogenous monetary policy easing lowers inequality (for example, see Ostry, Loungani and Berg, 2019). On the other hand, some studies suggest a positive impact of expansionary monetary policy on inequality through its impact on employment (for example, Draghi, 2016). In contrast, a view that has become increasingly popular since the financial crisis...
is that expansionary monetary policy can exacerbate inequality. To this end, studying the
distributional consequences of monetary policy is important, particularly for emerging market
economies, given their underdeveloped financial systems and issues related to monetary
transmissions and the effective outcomes of monetary policy.

In this context, this paper quantitatively assesses the distributional effects of monetary
policy in the case of Sri Lanka. Generally, Sri Lanka is considered as one of the few emerging
countries with high human capital, consistent with some advanced countries (Arun et al.,
2013) and the country has managed to reduce income poverty from 26.1 percent in 1990/91
to 4.1 percent by 2016. Nevertheless, it appears that income inequality has not changed
dramatically for more than four decades. As such, the richest 20 percent receives more than
half the total household income, while the poorest 20 percent only receives 5 percent of
household income. At the same time, income inequality remains high at 0.45 as measured
by the household income. It is observed that prior research suggests different causes for
inequality (and poverty) in Sri Lanka. For example, empirical evidence suggests that gender
and ethnicity matter for income inequality in Sri Lanka (Arun et al., 2013; Jayasinghe, 2019).
While certain studies such as Perera et al. (2014) suggest that unilateral trade liberalization
reduces poverty and income inequality, some studies, for example, Narayan et al. (2004)
suggest that loss of human capital in the lagging regions remains a source of inequality.

To that end, this paper contributes to the literature by assessing how conventional
monetary policy affects income inequality in Sri Lanka by way of identifying the causal effect
of monetary policy shocks on inequality. The study also investigates the factors determining
the magnitude of the impact and whether the impact is symmetric across positive and negative
monetary policy shocks (i.e., tightening and easing) as well as across the business cycles.
To our knowledge, these issues, particularly the relationship between monetary policy and
inequality has not been examined in the context of Sri Lanka.

Based on time series data for the period 1970 – 2018 and employing standard time
series estimation methods, this study observes some supporting evidence for the monetary
policy and inequality nexus. Nevertheless, the findings suggest that innovations in monetary
policy as proxied by a change in the policy interest rates do not lead to a persistent increase/
decrease in inequality. These results are robust for different specifications and they do not
indicate a substantive and persistent impact of monetary policy on inequality.

The rest of the paper is organized as follows. Section 2 presents a brief discussion
on relevant literature, while Section 3 discusses the institutional setup. Section 4 discusses
the data, measures of monetary policy shocks and income inequality, and the methodology.
Section 5 presents the results on income inequality and Section 6 concludes with a discussion
on policy implications.

2. Brief Literature Review

A number of theoretical and empirical research have attempted to identify the effects of
monetary policy on income inequality. In this section, some prior literature is briefly reviewed
with a view to position the current study in the Sri Lankan context, while defining the scope
of the paper.
In an early contribution, Romer and Romer (1998) observe that monetary policy influences inequality while poverty works in the opposite directions in the short-run and the long-run. Accordingly, they suggest that expansionary monetary policy increases poverty in the short-run, which is very much in line with some recent evidences as suggested in Ostry et al. (2019). Romer and Romer (1998) also suggest that low inflation driven by monetary tightening and stable aggregate demand improves the well-being of the poor in the long-run. Doepke and Schneider (2006) observe that an unexpected decrease in policy rates will benefit borrowers and hurt savers, while Heathcote et al. (2010) show that a decrease in monetary policy rates would lead to a decline in inequality. In a study carried out by the Deutsche Bundesbank (2016), it is suggested that an expansionary monetary policy tends to increase income inequality. However, the distributional effects of a monetary policy are not constant over time. In a recent contribution, Furceri et al. (2018) observe that contractionary monetary policy shocks increase income inequality on average, and the effect is asymmetric (varies over time) depending on the type of shock and the state of the business cycle. These studies confirm that there is a clear divergence with regard to the evidence for the monetary policy-inequality nexus.

As discussed in the Introduction, in spite of the fact that Sri Lanka has been able to achieve notable progress in reducing poverty, the country is still faced with significant income inequality. Several research studies have attempted to attribute this to several dimensions such as gender and ethnicity, etc. However, the impact of monetary policy on inequality has not yet been examined in the Sri Lankan context.

3. Institutional Setup

3.1 Socio-economic Background of Sri Lanka

Sri Lanka is an upper middle-income country with a per capita income level of around USD 4,102 in 2018. Although the economy is characterized as a vulnerable small open economy affected by domestic and global macro-economic developments, the country pursues remarkable socio-economic improvements, on par with other upper-middle income and developed economies (Figure 3.1). Nevertheless, the economic performance of the country remains lagging behind compared to the performances of peer economies such as Korea, Thailand and Malaysia. Since gaining independence in 1948, various economic policies were adopted by successive governments in Sri Lanka with a view to boost economic growth and reduce poverty, although the outcomes were not sufficient to provide the expected stimulus for growth thrust (Athukorala and Jayasooriya, 1994). This can be attributed to several factors including internal strife, inconsistent policies and structural issues. The economic liberalization in the late 1970s paved the way for certain transformations of the economy. However, although the economy started a new era ushered in with positive spill-over effects of the open economy policy package (Figure 3.2), it could not sustain the growth thrust for a longer period due to adverse impacts of the internal strife (Abeyratne, 2004). However, the Sri Lankan economy transformed into a services-oriented modern economy over the time, reaching a ratio of 57.7 percent of GDP in 2018, followed by the industry (26.1 percent) and agriculture (7.0 percent) sectors.

Figure 3.1
Evolution of Selected Socio-economic Parameters

Child Mortality Rate

Year

Per 1000 births
0 10 20 30 40 50

- Sri Lanka
- Singapore
- Malaysia
- United States


Secondary School Enrollment

Year

Gross Enrollment Ratio
80 90 100 110 120 130

- Malaysia
- Singapore
- Sri Lanka
- United States

3.2 Trends in Inequality

Inequality in income distribution continues to be a major concern for the policy makers in Sri Lanka. The Household Income and Expenditure Survey (HIES) conducted by the Department of Census and Statistics, which is conducted once in three years, is the key survey exploring the trends and dynamics of inequality in Sri Lanka. Although, extreme poverty is not an apparent condition for the economy, inequality in terms of income distribution has increased over the time (Figure 3.3). However, the economy shows some positive signs in income distribution, while the number of people living below the poverty line (Poverty Headcount Index, HCI) has decreased significantly over time (Figure 3.4). Although inequality has come down over the national level, regional disparities continue to persist.

Notably, the government has taken various measures, for example, introducing programs such as “Janasaviya” and “Samurdhi” to eradicate extreme poverty, malnutrition, etc. However, there are still some sectors that require the attention of the policy makers, especially the estate sector. Although a decrease in HCI has been observed, the segment remains just above the poverty line and is highly vulnerable to economic or social shocks. This is because the majority in this segment represents agricultural workers including estate workers and disabled people, and they could easily fall back below the poverty line. Further, the HIES results for 2016 show that the richest 10 percent of the households has about 35.4 percent of total income in Sri Lanka, while it accounts for 38.6 percent when the rural sector is considered. The poorest 10 percent share only 1.6 percent of the total pie and increases to 2.1 percent when the estate sector is considered.
Figure 3.3
Movements in GINI Index

Sri Lanka

Note: Solid lines indicate mean estimates; shaded regions indicate the associated 95% uncertainty intervals.
Source: Standardized World Income Inequality Database v8.1 (Solt, 2019).

Table 3.1
Contribution to Total Poverty by Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Poverty Head Count Index (%) - 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sri Lanka</td>
<td>4.1</td>
</tr>
<tr>
<td>Urban</td>
<td>1.9</td>
</tr>
<tr>
<td>Rural</td>
<td>4.3</td>
</tr>
<tr>
<td>Estate</td>
<td>8.8</td>
</tr>
</tbody>
</table>


Sri Lanka possesses many avenues for mitigating poverty and ensuring income distribution, such as increasing female labor participation, employment creation, and decentralization of economic centres covering other provinces of the country, which are currently concentrated in few areas mainly around the centre, Colombo. Further, increasing the formal sector coverage to include informal sector workers and regional integration are among other areas which need the attention of policy makers to reduce poverty in the country, and to escape from the middle-income trap.
3.3 Monetary Policy Framework of Sri Lanka

The monetary targeting framework was introduced in Sri Lanka in the 1980’s and price stability was achieved by influencing the monetary aggregates, particularly broad money supply. However, recent developments in the economy such as the dis-connection between money supply and inflation and high volatility and instability observed in the money multiplier and the velocity of money, suggest that monetary targeting appears to have been weakened. At present, Sri Lanka relies on an enhanced monetary policy framework, which consists features of both monetary targeting and inflation targeting, where the medium-term target is to maintain inflation at the mid-single digit levels, by way of influencing short-term interest rates. As such, the Central Bank of Sri Lanka has explicitly announced the process of adopting the Flexible Inflation Targeting Framework by 2020. However, the growth in broad money supply is also taken into consideration as an indicative intermediate variable, whereas the Average Weighted Call Money Rate (AWCMR) is considered as the operating target of the monetary policy framework.

3.4 Channels of Monetary Policy Shocks and Inequality

Coibion et al. (2012) looks at five possible channels by which monetary policy shocks could affect inequality. Firstly, the income composition channel explains how household income is affected by a monetary policy shock. Generally, most households receive labor income while others receive income from financial sources or by owning firms. If accommodative monetary policy causes the profits of firm owners to increase, compared to wages of households, households receive disproportionately lower income, thus raising inequality. Secondly, the financial segmentation channel shows that active market participants benefit after an expansionary monetary policy shock, as an increase in money supply will affect the redistribution of wealth for market participants and accordingly, inequality could rise.
According to the portfolio channel that explains the link between expansionary monetary policy and inequality, responding to an expansion in money supply and lower interest rates, low-income households tend to hold more currency and lower amount of assets compared to high-income households. An inflationary environment during an expansion of money supply, could increase consumption inequality of low-income households by way of transferring income from low-income households to high-income households.

On the other hand, the savings redistribution channel explains how expansionary monetary policy actions lead to a lowering of inequality. Accommodative monetary policy could hurt savers while benefiting borrowers, thus reducing consumption inequality, assuming that savers are generally wealthier than borrowers.

The earnings heterogeneity channel is the last channel examining the link between monetary policy and inequality. Most households earn from the labor market, with earnings from the labor market being the primary source of income. Different wage rigidities and different household characteristics such as the number of children and age could be observed among different income groups and thus earnings of both low- and high-income households could react differently to the changes in money supply. Accordingly, as explained by Carpenter et al. (2004), monetary policy shocks could lead to disproportionate changes in unemployment within low-income groups. Basically, if monetary policy reduces unemployment among low income groups, it will in turn reduce inequality among them.

4. Data and Methodology

In this section, we present a detailed discussion on the data used in this study, starting with a discussion on the procedure of selecting appropriate measures for inequality.

4.1 Key Variables

4.1.1 Inequality Measures

Data on income inequality for Sri Lanka can be obtained from the Household Income and Expenditure Survey (HIES) conducted by the National Statistical Agency, Department of Census and Statistics of Sri Lanka (DCS). However, inequality data for Sri Lanka measured by the GINI is only available from 1981 with a five-year interval. This limits the scope of our study. Hence, alternatively, as guided by Furceri et al. (2018), we retrieved inequality data from the Standardized World Income Inequality Database (SWIID) published by Harvard Dataverse. The SWIID database includes income inequality data measured as disposable and market income inequality for the period starting from 1960 to the present date for about 196 countries. However, in the case of Sri Lanka, required data is only available from 1970 to 2015. Given the adequate length of the data series, we used SWIID based data to measure

6. Gini coefficients are theoretically bounded between 0 (each reference unit receives an equal share of income) and 100 (a single reference unit receives all income).

7. The Standardized World Income Inequality Database (SWIID), http://fisolt.org/swiid/. The SWIID includes measures of disposable (post-tax, post-transfers) and market (pre-tax, pre-transfers) income inequality (Gini indices). It incorporates data from several sources (United Nations University’s World Income Inequality Database, the OECD Income Distribution Database, World Bank, Eurostat, the Luxembourg Income Study) and standardizes it.
inequality. Figure 4.1 illustrates the behavior of inequality data used in the present analysis, which indicates that income inequality measured both in terms of market and disposable income have increased in Sri Lanka over the period 1970 to 2015.8

![Figure 4.1](image)

**Figure 4.1**
**Inequality Based on Market Income and Disposable Incomes**

Note: Solid lines indicate mean estimates; shaded regions indicate the associated 95% uncertainty intervals.
Source: Standardized World Income Inequality Database v8.1 (Solt, 2019).

### 4.1.2 Monetary Policy Shock

In this study, monetary policy shock is considered as exogenous as there is no direct impact from monetary policy shocks to inequality, and vice versa. This is because the changes in monetary policy rates are not driven by inequality (inequality is not a target of central banks) and economic conditions can influence (at least in the short-term) both inequality and monetary policy actions (Furceri et al., 2018). Therefore, as guided by previous research studies, particularly in the emerging market context, for example, McCallum (1994); Haughton and Iglesias (2012) and Perera (2013), the 3-month Treasury bill rate (T_Bill rate) is used as the proxy for the monetary policy rate.9 We then generated the forecast error (FE) of the monetary policy rate as the difference between the actual policy rate (T_Bill rate) and forecasted policy rate (T_Bill_fore) derived as shown in Equation (1). The same approach

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9. The Average Weighted Call Money Rate (AWCMR) is the current operating target of the monetary policy framework of the Central Bank of Sri Lanka. However, as a longer AWCMR series is not available and given the significant volatility in AWCMR, we used the 3-month Treasury bill rate as the proxy for the policy rate in this exercise.
was used for calculating the forecast errors of GDP growth ($FE_g$) and inflation ($FE_i$). The forecast error derived as above were used to derive the variable MP, which serves as the proxy for monetary policy shock and is used for deriving the dummy variable to identify different monetary policy shocks.

$$FE_T = T\_Bill\_rate - T\_Bill\_fore$$  \(1\)

We broadly follow Furceri et al. (2018) to estimate the regression model based on Equation (2) in order to derive the exogenous monetary policy shock. Accordingly, the residual $\varepsilon_t$ stands for the exogenous monetary policy shock, MP in the economy.

$$FE_T = \alpha + \beta FE_i + \gamma FE_g + \varepsilon_t$$  \(2\)

### 4.2 Estimation Method

The impact of the monetary policy shock is tested deploying Vector Auto Regression (VAR) models. Our data sample used for empirical estimates spans for the period 1990 – 2015, which includes the annual average data obtained from the data library of the Central Bank of Sri Lanka (CBSL). As the VAR models allow the capturing of dynamic responses of variables, the VAR models is seen as appropriate for this study.

#### 4.2.1 Baseline Model

The baseline VAR model to capture the impact of monetary policy shock on inequality of this study is given by the following equation:

$$Y_t = c + \sum_{i=1}^{n} A_i Y_{t-1} + \varepsilon_t$$  \(3\)

$$Y_t = \begin{bmatrix} T\_Bill \\ X_t \\ GINI\_Disp \end{bmatrix}.$$  

$GINI\_Disp$, which represents a measure of inequality is disposable inequality, whereas $T\_Bill$ is used as the proxy for the monetary policy rate and $X_t$ includes a set of control variables such as GDP growth, unemployment, and inflation.

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10. Forecasts were done using the Auto Regression Integrated Moving Average (ARIMA) method.
11. In some models, we have used the exchange rate (USD/LKR) and oil price as control variables in addition to these variables.
4.2.2 Inequality in Contractionary or Expansionary Monetary Policy Shocks

In order to check whether contractionary or expansionary monetary policy shocks act differently on inequality, as an extension to the baseline model, based on the variable MP, we derive a dummy variable that takes the value of one for contractionary monetary policy shocks and zero for expansionary monetary policy shocks. For the purpose of explaining the impact of monetary policy cycle, we re-estimate Equation (3) with new variables as shown in Equation (6).

\[
Y_t = c + \sum_{i=1}^{n} A_i Y_{t-1} + \varepsilon_t \quad (6)
\]

\[
Y_t = \begin{bmatrix}
\text{Dummy} \cdot T\_Bill \\
(1 - \text{Dummy}) \cdot T\_Bill \\
X_t \\
GINI\_Disp
\end{bmatrix}
\]

4.2.3 Inequality in Different States of the Business Cycle

We further extend our analysis to check whether the effect of monetary policy shocks on inequality is different depending on the state of the business cycle, following the same method used by Furceri et al. (2018). Accordingly, we estimate Equation (7), including the Smooth Transition Function, \( G_t \), where \( G_t \) is derived using an indicator (z) to represent the state of the economy, i.e., passing a recessionary or an expansionary period at the time of the shock. While calculating z, the deviation of GDP growth rate (annual) from the trend is derived using the Hodrick-Prescott (HP) filtered GDP series. With reference to Auerbach and Gorodnichenko (2012), we also use a high smoothening parameter of \( \lambda = 10,000 \), in order to achieve a smooth curvature of the transition function and filtered GDP series as shown in Figure 4.3.

\[
Y_t = c + \sum_{i=1}^{n} A_i Y_{t-1} + \varepsilon_t \quad (7)
\]

\[
Y_t = \begin{bmatrix}
G_t \cdot T\_Bill \\
(1 - G_t) \cdot T\_Bill \\
X_t \\
GINI\_Disp
\end{bmatrix}
\]

where, \( G_t = \frac{\exp(-\gamma z_t)}{1 + \exp(-\gamma z_t)} \) and \( \gamma = 1.5 \)\(^{12} \)

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\(^{12}\) With reference to Furceri et al. (2018) we use \( \gamma = 1.5 \). Results were checked for robustness with \( \gamma = 1.2 \) and the same results were observed. These results are given in Annex 1.
5. Results and Discussion

In this section, we present the results of the VAR model employing inequality measures and monetary policy shocks along with other key variables in the system.

5.1 Baseline Model

The estimation results of Equation (3) based on the Gini coefficient for disposable income as the measure of inequality are presented in Figure 5.1.

![Figure 4.3](image)

Source: Authors’ Estimates.

![Figure 5.1](image)

Source: Authors’ Estimates.
As per the Impulse Response Functions reported in Figure 5.1, it appears that monetary policy tightening leads to a significant reduction in inequality, particularly in the short-run. Although the negative impact of a monetary shock on inequality does not appear statistically significant and is not persistent across the time horizon, these results broadly suggest that contractionary monetary policy tends to reduce income inequality. This observation is broadly in line with prior literature, for example, Ampudia (2018) and Davtyan (2017), which suggest that contractionary monetary policy decreases income inequality. Ampudia (2018) observes that an indirect income channel, which has an overwhelming importance, especially for households holding few or no liquid assets, could induce a downward bias in inequality. In the case of Sri Lanka, it could be observed that a significant portion of household savings are allocated for interest bearing assets given the lack of alternative or non-interest-bearing assets. Hence, during the periods of monetary tightening, income on their interest-based assets rises thereby improving their consumption and welfare at the aggregate level. This is very applicable in the case of senior citizens who mainly rely on interest income generated out of financial assets placed at financial institutions. Hence, the decline in inequality in response to monetary tightening in Sri Lanka can be tracked down to the working of an indirect interest rate channel as observed by Ampudia (2018). Nevertheless, these observations do not appear consistent with Furceri et al. (2018), which observe that monetary policy tightening leads to a long-lasting increase in income inequality.

5.2 Extended Models

As an extension to the analysis and in order to examine the robustness, we make several alterations to the baseline VAR model. First, we consider the impact of monetary policy cycles on inequality. This is important because there are divergent views on the impact of monetary policy cycles on the distributional effects of monetary policy. For example, some prior literature suggests that positive monetary policy shock (contractionary monetary policy) has a larger and significant impact on economic activity and hence a negative impact on inequality. This is because monetary contraction leads to high interest rates, resulting in small firms facing difficulties in obtaining external finances, identified as the so-called credit channel of monetary transmission. Hence, considering the importance of the credit channel and the impact through economic activity, it would be important to gauge the impact of monetary policy on inequality across different monetary policy cycles.

Figures 5.2 and 5.3 present the results of the extended VAR models incorporating the dummy variable which takes the value of one for positive monetary policy shocks (monetary contraction) and zero otherwise.13

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13. When presenting the results, which only indicate some significance, we have superimposed the baseline response obtained from the baseline model for comparison purposes.
Figure 5.2
Impact of Contractionary Monetary Policy Shock on Disposable Income Inequality

Response of GINI_DISP to T_BILL*DUMMY Innovation using Cholesky (d.f. adjusted) Factors

Note: Estimation is based on Equation (6). Solid blue line shows the response to an unanticipated contractionary monetary policy shock. Solid green line denotes the baseline response presented in Figure 5.1.
Source: Authors’ Estimates.

Figure 5.3
Impact of Expansionary Monetary Policy Shock on Disposable Income Inequality

Response of GINI_DISP to T_BILL*(1-DUMMY) Innovation using Cholesky (d.f. adjusted) Factors

Note: Estimation is based on Equation (6). Solid blue line shows the response to unanticipated expansionary monetary policy shock. Solid green line denotes the baseline response presented in Figure 5.1.
Source: Authors’ Estimates.
The results presented in Figure 5.2 and 5.3 suggest that the sign of monetary policy shock, i.e., nature of the monetary policy cycle does matter somewhat for inequality. As such, some evidences are observed suggesting that positive monetary policy shocks (contractionary monetary policy) lead to a decrease in inequality in the short-run, but it increases in the long-run, albeit less persistent than the baseline. This can be seen in the evidence for the existence of credit market imperfections and changes in investments by the small firms due to high external financing costs. These results broadly contrast the results of Furceri et al. (2018) at least in the short-run, but are in line with some prior literature, for example, Davtyan (2017), which suggests that contractionary monetary policy decreases income inequality, and monetary policy might be considered as another effective policy instrument which can be used to reduce inequality.

It is argued that the effects of monetary policy tightening are larger during periods of economic expansions, while monetary policy easing only has effects during periods of recessions, suggesting asymmetric effects of monetary policy on inequality (Matthes and Barnichon, 2015). Guided by this premise, we further examine monetary policy shocks and their impact on inequality for different business cycle conditions. Figures 5.4 and 5.5 present the results of the impact of monetary policy shocks across recessionary and expansionary periods of the economy. As Figure 5.5 presents some significant results, we have superimposed the baseline response for comparison purposes.

**Figure 5.4**

**Impact of Monetary Policy Shock to Market Inequality in Recessions**

Response of GINI_DISP to G_Z_IT*T_BILL Innovation using Cholesky (d.f. adjusted) Factors

Note: Estimation is based on Equation (6). Solid blue line shows the response to an unanticipated contractionary monetary policy shock.

Source: Authors’ Estimates.

14. In this study, we use $\gamma = 1.5$ for the smooth transition function between different states of the economy and the results reported in Annex 1 are robust for $\gamma = 1.2$ as in Furceri et al. (2018).
The results presented in Figure 5.4 and 5.5 suggest that monetary policy shocks tend to have significant effects on inequality during expansions than recessions. They also show that the impact of a positive monetary policy shock during an expansion leads to a further reduction in inequality compared to the baseline. As argued by Furceri et al. (2018), this approach tends to mask the important differences in the response of inequality to positive and negative monetary policy shocks across the business cycles. To uncover such heterogeneity, we generated further estimates for positive and negative monetary policy shocks across the business cycles, and the results are reported with proved significance in Figure 5.6.
Based on Figure 5.6, some evidence for a decline in inequality can be observed amidst the impact of a tight monetary policy cycle and a booming business cycle although the impact is not persistent across the time horizons. At the same time, we observe that other monetary policy cycles and business cycles do not produce consistent and significant results to suggest that there is notable heterogeneity in the response of inequality to different monetary policy and business cycles. This suggests the difficulty of using monetary policy as a tool (by way of pursuing monetary relaxation or tightening measures) to address the inequality issue in an economy.
6. Conclusions and Policy Implications

This paper evaluates the distributional effects of monetary policy for Sri Lanka. While monetary policy shocks in this study were identified using the causal estimation of the effect of monetary policy shocks on inequality, alternative measures of inequality were employed to represent the dynamics of income distribution. The econometric study of the paper was carried out based on the standard VAR representation applied on the annual time series data in the Sri Lankan context.

Based on the empirical evidence and different model specifications, we observe some evidence for the nexus between monetary policy and inequality in Sri Lanka, which provide some implications for the consideration of the policy makers including monetary authorities. While we observe that contractionary monetary policy shocks reduce income inequality to some extent, innovations in policy interest rates do not lead to a persistent increase/decrease in inequality. At the same time, we observe that different specifications do not indicate substantive impact of monetary policy on inequality. Hence, we conclude that although there are some evidences for the distributional effects of monetary policy in the Sri Lankan context, permanent and strong effects of monetary policy on inequality cannot be determined. Moreover, the distribution of income does not seem to impact the transmission mechanism of monetary policy.

It should be noted that these observations are subject to some caveats. This study uses inequity data derived from an external database due to the lack of accurate internal inequality data. The study is also based on the standard time series modelling approach without considering time varying parameters. As such, in order to further ensure the robustness of the results, different model specifications and different proxies for inequality would need to be considered, while considering the structural breaks and time varying properties of data. Moreover, it would be vital to investigate the distributional effects of monetary policy across different business sectors, and such efforts are left for future research in the Sri Lankan context.
References


Annex 1

Robustness check with Gamma = 1.2
Figure A1 - 1
Impact of Monetary Policy Shock to Market Inequality in Recessions

Response of GINI_DISP to G_Z_IT_1_2*T_BILL Innovation using Cholesky (d.f. adjusted) Factors

Figure A1- 2
Impact of Monetary Policy Shock to Market Inequality in Expansions

Response of GINI_DISP to (1-G_Z_IT_1_2)*T_BILL Innovation using Cholesky (d.f. adjusted) Factors
Figure A1 – 3
Impact of Negative Monetary Policy Shock to Market Inequality in Expansions

Response of GINI_DISP to (1-DUMMY)*(1-G_Z_IT_1_2)*T_BILL Innovation using Cholesky (d.f. adjusted) Factors