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GLOBAL EXCESS LIQUIDITY SPILLOVERS AND MONETARY POLICY IN EMERGING ECONOMIES

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ABSTRACT

The following paper raises the question of monetary policy's effectiveness in emerging countries during the three phases of global excess liquidity. To answer it, our analysis is divided in two parts. The first one focuses on the concept of global excess liquidity and identifies when it occurs according to global liquidity cycles. The second one is devoted to a country case study based on Time-Varying Parameter Vector Autoregression (TVP-VAR) models. It focuses on the effectiveness of monetary policy in six emerging countries – each of which has different characteristics during the identified episodes of global excess liquidity. This paper's contribution lies in the identification of episodes of global excess liquidity. It confirms the fact that their specificities are in line with the main features of the three phases of global liquidity acknowledged in the literature. Additionally, the empirical methodology allows us to establish a hierarchy among the considered countries, depending on global excess liquidity pass-through in their economies. Results reveal that receiving countries tend to react differently to surges in global liquidity conditions, particularly during periods of global excess liquidity. Moreover, results confirm the literature's typology regarding vulnerabilities of emerging economies. Thence, these vulnerabilities may affect the efficiency of countries' monetary policies. Besides, it appears that the emerging economies examined in this paper are generally affected by global liquidity's private components at different degrees. Furthermore, it is found that countries following the inflation targeting framework can limit liquidity inflows' consequences on domestic prices. Finally, it seems that the choice of monetary policy (pegged currency, active reserve management and capital controls) implemented by the People's Bank of China helps to isolate the country from global liquidity developments.

JEL Codes: C11, E17, E52, F62

KEYWORDS: *Global liquidity, Emerging countries, Spillovers, Time-Varying Parameter VAR, Bayesian VA*

1. INTRODUCTION

Studies on global liquidity tend to focus on the financial stability perspective, particularly from the advanced countries perspective. More recently, (Landau and others, 2011) introduced consensual definitions and calculations to clarify the different measures developed within the literature. From this perspective, this study proposes –to our best knowledge– the first synthesis of global liquidity issues through financial stability. Whereas the major empirical papers focus on advanced countries, a recent strand of literature investigates the implications of global liquidity issues from the receiving economies perspective (mainly in emerging economies). It mostly concerns the financial stability (Brana et al., 2012), reserves accumulation, and the issues of global imbalances (Djigbenou-Kre and Park, 2016). The last part of the literature assesses the impact of global liquidity expansion on capital flows in receiving economies (Azis and Shin, 2015; Shin, 2014).

This paper adopts a different perspective by considering global liquidity issues from the monetary policy perspective, as well as from a country level analysis. To this end, this paper's main research question is: how did the monetary authorities of Brazil, Chile, China, India, Malaysia, and Thailand react during surges in global liquidity (between 2000 and 2015)? To answer this question, this paper is structured into two main sections. The

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first section focuses on measurement methods and on the identification of global excess liquidity. The second one conducts an empirical approach based on Time-Varying Parameters Vector Autoregressive (TVP-VAR) models to assess the effectiveness of monetary policies during global liquidity surges. This approach is chosen as it is one of the few methods that allows us to precisely analyse estimations' results during the identified surge dates.

2. GLOBAL EXCESS LIQUIDITY: MEASUREMENT AND PERIOD IDENTIFICATION

2.1. Measurement

In practice, empirical studies on global excess liquidity focus either on the interest rate's short-term nominal gap or on the money/credit aggregates ratio to GDP (derived from money gap), a well as their deviations from an equilibrium value. In this paper, the "*money gap*" approach is used to construct two indicators that identify periods of excess liquidity since the early 90s. In consequence, the liquidity shortfall is also identified. According to (Gouteron et al., 2005), the ratio to GDP approach has the advantage of not requiring any reference date to identify periods of excess liquidity. Moreover, it uses a logarithm that allows to compare money growth rates and GDP. Nevertheless, this paper focuses on (Borio and Lowe, 2004, 2002) cumulative imbalances approach to precisely identify periods of global excess liquidity. It is done by comparing the ratio of money/credit aggregates to GDP, relatively to the trend –considered as the equilibrium value– obtained by HP filter. In this methodology, a period of global excess liquidity occurs only when the ratio money or credit aggregates relative to GDP exceeds positively its trend for at least three successive quarters. Recent studies use this extended definition of excess periods by considering four quarters of persistent global liquidity growth as an excess period during five consecutive quarters, and they allow one negative gap quarter between the four quarters (Roffia and Zaghini, 2007). (Bruggeman, 2007) kept the three quarters rule but expanded the definition of global excess liquidity period by allowing up to four quarters of negative gap between two recognised periods of global excess liquidity. In addition, the whole ten quarters are identified as only one period of global excess liquidity. Be as it may, this paper uses a strict definition as the three months rule is used to define a period of global excess liquidity.

The first set of indicators is based on the sum of G6 monetary aggregates[1] relative to their GDP (expressed in U.S. dollars). The broader monetary aggregates available for each country are chosen since it can capture both public and private liquidity developments through the monetary, market liquidity and funding liquidity conditions. To assess the hypothesis of global excess liquidity, two versions of this first indicator are used. The first (1) is related to the specification of (Kramer and Baks, 1999):

$$GL_1 = log\left(\sum_{i=1}^{j}\left(\frac{M_i}{GDP^i}\right).\frac{1}{S_i}\right) - trend\left(log\left(\sum_{i=1}^{j}\left(\frac{M_i}{GDP^i}\right).\frac{1}{S_i}\right)\right) \quad (1)$$

The second (2) fits specifications of (Borio and Lowe, 2002) and (Rüffer and Stracca, 2006):

$$GL_2 = \sum_{i=1}^{j}\left(\frac{M_i}{GDP^i}\right).\frac{1}{S_i} - trend\left(\sum_{i=1}^{j}\left(\frac{M_i}{GDP^i}\right).\frac{1}{S_i}\right) \quad (2)$$

where M_i represents the monetary aggregates and S_i is the exchange rate between the local currency and the U.S. dollar.

The second set of indicators is based on GDP-weighted cross-border credit to non-resident aggregates[2] for the United States, the Euro Area, Japan, and the United Kingdom (all expressed in U.S. dollars). According to (Landau and others, 2011), using credit aggregates has its advantages when assessing the global liquidity phenomenon. Indeed, the private sector credit covers a broad range of sources from the banking sector to securities markets. It also captures interactions between markets and funding liquidity that are important drivers for the expansion of

[1] *Largest monetary aggregates available per country are used, mostly M2 and M3 for UK.*
[2] *The cross-borders credit is from BIS locational statistics.*

domestic private liquidity. Moreover, credit aggregates take into account the cross-border positions of domestic banks. It is an important measure of changes in liquidity conditions that are transmitted internationally, and affect financial stability in the receiving economies. Furthermore, considering cross-border and international credits is useful to analyse global liquidity conditions in many different manners. One of them is the "receiving economy" approach. It signals if growing cross-borders credit flows are associated with the developments of vulnerabilities within receiving economies. Thus, the second set of indicators is defined by:

$$GL_3 = log\left(\sum_{i=1}^{j}\left(\frac{credit_i}{GDP^i}\right).\frac{1}{S_i}\right) - trend\left(log\left(\sum_{i=1}^{j}\left(\frac{credit_i}{GDP^i}\right).\frac{1}{S_i}\right)\right) \quad (3)$$

$$GL_4 = \sum_{i=1}^{j}\left(\frac{credit_i}{GDP^i}\right).\frac{1}{S_i} - trend\left(\sum_{i=1}^{j}\left(\frac{credit_i}{GDP^i}\right).\frac{1}{S_i}\right) \quad (4)$$

where $credit_i$ represents the cross-border aggregates and S_i the exchange rate between the local currency and the U.S. dollar.

2.2. Identifying Periods of Excess Liquidity

As explained earlier, this paper's analysis is centred on the "*money gap*" approach to measure global excess liquidity. In this methodology, the difference between the GDP-weighted monetary/credit aggregates ratio and its trend should be positive for three consecutive quarters to assess the presence of global excess liquidity. Our indicator is based on quarterly data from G6 countries and the Euro Area. Our period span starts in 1995Q1 and ends in 2015Q4. The collected variables are money aggregates, cross-border credit, and GDP (from the IMF and BIS). The trend for each indicator is obtained by filtering each ratio with the Hodrick & Prescott filter –smoothing parameters of 1600, see (Hodrick and Prescott, 1997). On the basis of monetary aggregates (Table 1 and Figure 1), six periods of global excess liquidity are identified. Furthermore, some periods of global excess liquidity can be replaced in the context of monetary policies developments in advanced countries. Hence, the third period of global excess liquidity occurred during the pre-crisis period also entitled as the first phase of global liquidity (Azis and Shin, 2015; Shin, 2014). This period is characterised by loose monetary policies with policy rates deviating from the Taylor rule, which allows the development of private liquidities (market and funding liquidity, securitisations, real estate dynamics and bank leverage).

Furthermore, periods four to six illustrate unconventional monetary policies implemented in advanced countries during the post-period crisis. The world economy was flooded by liquidities from quantitative easing (QE) programs. It had consequences on financial and macroeconomic stability of both issuing and receiving countries. Results based on cross-border credit aggregates (Table 2 and Figure 2) confirm the presence of four periods of global excess liquidity. By emphasising another perspective, it also refines the previous analysis. Moreover, global excess liquidity during periods two to four also illustrates the second phase of global liquidity established by (Azis and Shin, 2015; Shin, 2014). The global liquidity growth during these periods is driven by emerging countries' bond markets. This is mainly explained by the worldwide pursuit of financial returns from global asset managers. Additionally, (Landau and others, 2011) states that despite the GFC, the global credit still expands because of cross-border and foreign currency credits in Asian countries. It is particularly true for countries such as China, that received consequent credit booms. In sum, changes in global excess liquidity are emerging from various factors. Thus, the use of a lone indicator is not enough to understand the origin of these changes. Besides, global excess liquidity episodes raised concerns among policy makers as they may affect capital inflows and economies.

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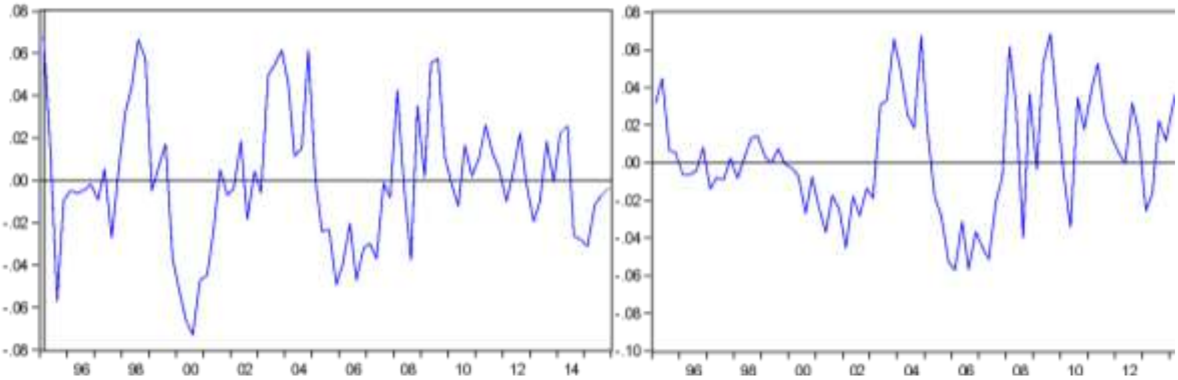
Table 1
Identified Global Excess Liquidity Periods from the Monetary Aggregates

Period No.	Dates
1	1995Q1 – 1995Q4
2	1998Q2 – 1999Q1
3	2003Q2 – 2005Q1
4	2009Q2 – 2009Q4
5	2010Q4 – 2012Q1
6	2013Q3 – 2014Q2

Figure 1
Indicators of Global Excess Liquidity

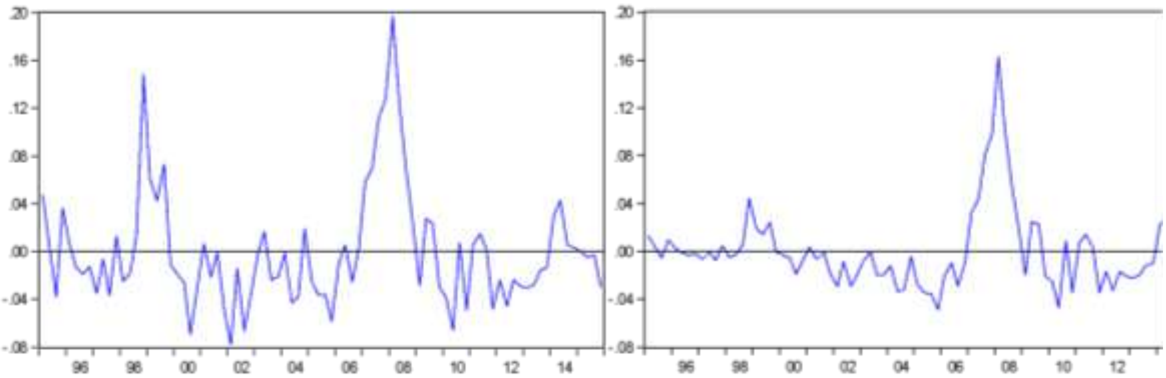


Notes: GL_1 is on the left, while GL_3 on the right. Sources: authors' calculations.

Table 2
Identified Global Excess Liquidity Periods from the Cross-Border Credit Aggregates

Period No.	Dates
1	1998Q3 – 1999Q3
2	2007Q1 – 2008Q4
3	2011Q1 – 2011Q3
4	2014Q1 – 2015Q1

Figure 2
Global Excess Liquidity Indicators based on Cross-Border Credit Aggregates



Notes: GL_3 is on the left, while GL_4 on the right. Sources: authors' calculations and IMF.

3. GLOBAL EXCESS LIQUIDITY AND MONETARY POLICY IN THE RECEIVING EMERGING ECONOMIES

In this section, consequences of global liquidity expansion are investigated from the perspective of emerging countries' monetary policy. The analysis is centred on the reaction of monetary authorities to capital inflows

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consequent to global liquidity expansion over time. Furthermore, identified periods of global liquidity surge are studied, as well as effects on domestic private liquidity and inflation. In order to evaluate global liquidity outcomes in these countries, TVP-VAR models are used. Amongst the literature that considers emerging economies, this approach can be considered as original. Indeed, previous studies mainly focused on the financial stability perspective (through the destabilising effects of domestic assets price and long-time interest rates (Brana et al., 2012; Djigbenou-Kre and Park, 2016) rather than on the monetary perspective.

3.1. Data and Preliminary Treatment

The data of six emerging countries that received liquidities are used, and it has been decided to focus on the indicators of global liquidity developed in the previous section – equation (1) and (3). Thus, monetary liquidity indicators and private liquidity indicators have been used. Besides, liquidity-receiving countries are Chile, Brazil, China, India, Thailand and Malaysia. The choice of these countries relies on their monetary policy stance (the sterilisation of liquidity inflows). Data are quarterly, from 1990Q2 to 2015Q4, and have been obtained from the IMF (IFS database), World Bank database, BIS database and Macrobond database. Thus, the following variables have been collected:

- The considered country's real effective exchange rate.
- International reserves to simulate the central bank's reserves management.
- Indicators of short-term interest rates modelled by policy rates, interbank rates, discount rates and money market as proxy for monetary policy stance.
- Domestic credit, to capture changes of domestic private liquidity.
- Consumer price index as proxy for the domestic inflation indicator.

To estimate our model, a few preliminary statistical treatments were required. It has been necessary to convert data in the same currency (U.S. dollar), and to proceed with a logarithm transformation of the considered variables. Finally, unit root tests have been achieved and variables that are not I(0) were first-differenced. Consequently, all variables used in our analysis are stationary. The general specification of our 6×1 vector of endogenous variables[3] y_t is defined as:

$$y_t = (\Delta GL_t; \Delta reer_t; \Delta reserve_t; \Delta i_t; \Delta credit_t; \Delta price_t)' \tag{5}$$

where Δ defines the first difference operator, GL_t the global liquidity indicator, $reer_t$ the exchange rate stance, $reserve_t$ the country's level of international reserves, i_t the short-term interest rate, $credit_t$ the level of domestic credit and $price_t$ the level of inflation.

3.2. Methodology

To assess global liquidity spillovers from the receiving emerging countries (monetary policy perspective), it has been decided to focus on the country level. This approach is different from what was previously done within the previous empirical literature since it's mostly focused on regional or worldwide level. The TVP-VAR from (Del Negro and Primiceri, 2015) is used with the stochastic volatility methodology[4] over a simple VAR model, allowing coefficients to fluctuate over time. It also refines the analysis on periods of global liquidity surge, as defined in previous sections. Hence, it is also a good way to measure their implications in terms of monetary policies. Moreover, the effect of global liquidity inflows on domestic private liquidity and inflation is also taken into account. Possible changes in monetary policies over the studied period are thus considered.

The reduced form of a multivariate time series VAR model, containing both time-varying coefficients and time-varying standard errors of structural innovations is defined as:

$$y_t = c_t + B_{1,t} y_{t-1} + \cdots + B_{p,t} y_{t-p} + u_t \tag{6}$$

[3] *The specification may differ across countries because some variables are stationary in level and do not need a first difference transformation.*

[4] *In particular, the second algorithm of (Del Negro and Primiceri, 2015) the R computed version made by (Krüger, 2015).*

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where y_t defines the 6×1 vector of endogenous variables, c_t a vector of time-varying constants, $B_{i,t}(i = 1, \dots, p)$ are 6×6 matrices of time-varying lagged coefficients and u_t are heteroscedastic unobservable shocks with variance-covariance matrix Ω_t. The triangular reduction of Ω_t is considered and defined by:

$$A_t \Omega_t A'_t = \Sigma_t \Sigma'_t \tag{7}$$

where A_t is the following triangular matrix:

$$A_t = \left(1\ 0\ \dots\ 0\ a_{21,t}\ \ddots \ddots \vdots \vdots \ddots \ddots\ 0\ a_{61,t}\ \dots\ a_{65,t}\ 1\right) \tag{8}$$

and Σ_t is the following diagonal matrix:

$$\Sigma_t = \left(\sigma_{1,t}\ 0\ \dots\ 0\ 0\ \sigma_{2,t}\ \ddots \vdots \vdots \ddots \ddots\ 0\ 0\ \dots\ 0\ \sigma_{6,t}\right). \tag{9}$$

Consequently, previous elements lead us to:

$$y_t = c_t + B_{1,t} y_{t-1} + \cdots + B_{p,t} y_{t-p} + A_t^{-1} \Sigma_t \varepsilon_t \tag{10}$$

$$V(\varepsilon_t) = I_6. \tag{11}$$

As R.H.S coefficients are set in vector B_t, equations (10) and (11) become:

$$y_t = X'_t B_t + A_t^{-1} \Sigma_t \varepsilon_t \tag{12}$$

$$X'_t = I_6 \otimes \left[1, y'_{t-1}, \dots, y'_{t-p}\right] \tag{13}$$

with $\otimes$ the Kronecker product that allows us to use a modeling strategy consisting of modeling the coefficient processes in equation (4) rather than equation (1). Hence, the one-to-one mapping between the two previous equations justifies this approach. For the following developments, a_t is the vector of non-zero and non-one elements of the matrix A_t (stacked by rows). It gathers elements of the matrix of contemporaneous relationship A_t, while b_t is the vector that contains the stacked columns of matrix B_t. Moreover, $h_t = ln\,(\sigma_t)$ with $\sigma_t = (\sigma_{1,t}, \dots, \sigma_{6,t})$. Consequently, let's define a_t and b_t as:

$$a_t = (a_{21,t}, \dots, a_{61,t}, a_{32,t}, \dots, a_{62,t}, a_{43,t}, \dots, a_{63,t}, a_{54,t}, a_{64,t}, a_{65,t}) \tag{14}$$

$$b_t = (c_t B_{1,t}, \dots, B_{6,t}). \tag{15}$$

Finally, the dynamics of the model's time-varying parameters is specified as:

$$a_t = a_{t-1} + \nu_t \tag{16}$$

$$b_t = b_{t-1} + \zeta_t \tag{17}$$

$$h_t = h_{t-1} + \eta_t \tag{18}$$

where elements of b_t are modeled as random walks, which is also true for the free elements of matrix A_t. Standard deviations σ_t are assumed to evolve as geometric random walks, introducing the stochastic volatility into the model. The random walk specification has benefits for modelling macroeconomic models. It allows breaks in the evolution of parameters during the estimation period. Moreover, it focuses on permanent shifts and reduces the number of parameters in the estimation procedure.

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It is assumed that innovations of the reduced form model are jointly normally distributed, following these variance-covariance matrix's assumptions:

$$(\varepsilon_t \, \nu_t \, \zeta_t \, \eta_t) \sim N(0, V) \quad with \quad V = (I_6 \, 0\,0\,0\,0 \, Q \, 0\,0\,0\,0 \, S \, 0\,0\,0\,0 \, W) \tag{19}$$

Thence, matrix V is block diagonal with I_6, Q, S and W. Respectively, they are equal to the covariance matrix of the structural innovations ε_t, innovations of lagged coefficients ν_t, innovations of contemporaneous coefficients ζ_t and the innovations of (log) standard errors η_t. The covariance matrix S is assumed to be block diagonal. Thus, blocks of S, which correspond to contemporaneous relations among variables of each separate equation, are assumed to be mutually independent. Regarding the estimation, the TVP-VAR methodology uses Bayesian estimation on our quarterly data from 1990Q2 to 2015Q4. Since the TVP-VAR is a data consuming methodology, and as our period is relatively short (103 observations per series), the lag length is set to be $p = 1$ for all our country-models. Moreover, the inference from the Bayesian approach uses key prior information, following previous recommandations (Del Negro and Primiceri, 2015; Primiceri, 2005) to determine the true values of our parameters over the sample period. According to Primiceri, key priors are estimated using a time-invariant VAR process on the training sample (that is a small initial subsample of our dataset); it is the first 40 observations per series in our case. Consequently, a time-invariant VAR model is estimated for each country from 1990Q2 to 2000Q2. It means that the first 10 years of data are used as a training sample to obtain priors for the estimation that begin in 2000Q2.

3.3. Ordering the Endogenous Vector

Technically, the structure of the variance-covariance matrix of the reduced-form residuals Ω_t in equation (2) implies a Cholesky decomposition scheme amongst our endogenous vector; it restricts the contemporaneous relationship matrix to be lower triangular. Firstly, it is considered that the most exogenous variable of our model is the global liquidity indicator –since it is the aggregate liquidity created in the issuing advanced countries. Secondly, according to global liquidity effects on capital flows, the surge of global liquidity triggers a surge of capital inflows into the receiving economies. In turn, it will affect exchange rates of receiving economies according to their exchange rate regimes. Thirdly, on the basis of the reserve management policy of receiving economies, monetary authorities may resort the adjustment of international reserves in order to sterilise upcoming surges in liquidity inflows, and to stabilise exchange rates. Fourthly, monetary authorities may also change their policy rates during periods of surge in liquidity inflows, especially to prevent excessive evolutions of domestic credit from commercial banks. Fifthly, as effects of liquidity inflows are not fully sterilised, it is expected that the global ease of financing due to the surge of global liquidity should affect domestic credit creation and commercial banks' behaviour. Finally, the most endogenous variable is domestic inflation. It should be affected last by the surge of liquidity inflows. As defined in the previous section, the following order for endogenous vector is considered for the entire set of country model:

$$y_t = (\Delta GL_t; \Delta reer_t; \Delta reserve_t; \Delta i_t; \Delta credit_t; \Delta price_t)' \tag{20}$$

3.4. Empirical Analysis

As already stated in the previous section, there are two main objectives in this paper's empirical approach. Firstly, one needs to evaluate on a country level analysis of how surges in global liquidity affect the liquidity-receiving countries from the monetary policy viewpoint (that is how the monetary policy stance affects global liquidity pass-through into the receiving economies). Secondly, it is necessary to see how advanced countries' ease of financing affects both the domestic credit market and price evolution –according to the domestic monetary policy stance. For this purpose, the analysis is centred on six liquidity-receiving emerging economies (China, Malaysia, Thailand, India, Brazil and Chile) according to their monetary policy stance (monetary targeting, inflation targeting, or exchange rate regimes) and operational frameworks. Their vulnerabilities are also studied, as suggested in the typology introduced in (Pradhan et al., 2013), see Table 3.

The empirical analysis is based on TVP-VAR impulse response functions (IRFs) and residuals[5] for each liquidity indicators[6] that were developed in the previous section (and thus during the entire period). Moreover, thanks to the TVP-VAR methodology, it is possible to focus on IRFs at specific dates, according to the surge of global liquidity

[5] *For comparison purposes, residuals from a simple VAR(1) estimation are also displayed.*
[6] *The aggregate version of global liquidity indicators is used.*

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previously identified. It is achieved to evaluate the degree of global liquidity pass-through in the receiving economies, relatively to one specific IRF. For this purpose, peak dates of three selected periods of global excess liquidity are used, relatively to one regular arbitrary date (for purposes of comparison). For the monetary aggregate as global liquidity indicator, we used 2008Q1, 2011Q2, and 2014Q2, as dates from periods of identified global excess liquidity. They are compared to 2002Q4, which is the beginning of the global liquidity cycle. For the cross-border credit aggregate indicator, dates of surge are 2008Q4, 2011Q2, 2014Q2. They are compared to 2003Q4.

3.4.1. Country Level Analysis: China

To begin with, the first model that is used is the one based on the monetary aggregate indicator of global liquidity, see equation (1). According to the results of the residuals analysis (Figure 3.1), variables' residuals show signs of variability over time (contrarily to residuals of a simpler VAR (1) model). The exchange rate and the interest rate show higher variability patterns, hinting to the fact that variables are subjected to different changes across the period, while other variables do not. It also indicates that these variables endure sharp evolutions over periods of global excess liquidity. Interestingly, inflation and reserves do not exhibit such time-varying changes, which hints to the lack of transmission of foreign liquidity inflows into the Chinese economy. Moreover, IRFs (Figure 3.2) show that a positive shock of global monetary liquidity does not exert a significant impact on the Chinese economy. Hence, from a monetary policy standpoint, results are relevant since China is considered as one of the least vulnerable emerging economies to global liquidity developments. It confirms the effectiveness of monetary policies applied by the People's Bank of China. Finally, according to the magnitude comparison of IRFs (Figure 3.3) between different periods of global excess liquidity, results do not show any huge discrepancy between the IRFs' magnitudes of variables. This is also true for IRFs of the regular period.

Secondly, the model based on the aggregate cross-border credit as global liquidity indicator is used to refine our analysis, see equation (2). Residuals' results (Figure 3.4) are quite similar to the first model, with relative changes in the patterns of international reserve, of the exchange rate, and of the interest rate. However, impulse response functions' results (Figure 3.5) (for the entire period) show different outcomes on variables. Indeed, contrarily to surges in monetary liquidity, the Chinese economy is more receptive to international bank flows. This is particularly true since there are positive and significant effects on reserves and on the short-term interest rate – contrarily to other variables. It means that surges of international bank flows encourage monetary authorities to change their reserves to sterilise the incoming liquidity and to limit their effects on the exchange rate –especially as these flows are expressed in foreign currency. Moreover, the significant increase in the interest rate reduces the domestic credit creation over the period, in order to significantly decrease the effect on domestic price's inflation. According to impulse response functions' magnitude comparison (Figure 3.6), the only noticeable result relies on reserves' IRFs, which are different from the date of surge of global liquidity. It appears that bank flows from the surge of 2014Q2 have the most important effects on international reserves of People's Bank of China.

3.4.2. Country level analysis: Thailand

Contrarily to China, Thailand's results are slightly different depending on the type of global liquidity indicator. According to the first model (based on monetary aggregates indicator), main results over residuals (Figure 3.7) show variability of the exchange rate, of reserves, and of the interest rate. Residuals of other variables do not show any signs of major changes over the period. Results from the IRFs analysis (Figure 3.8) show that all variables are not significantly affected (considering the 5 and 95 percent quantiles) by a positive shock of global monetary liquidity. Indeed, a positive shock of global liquidity provokes appreciation pressures on the exchange rate, tends to increase reserves, puts downward pressures on the short-term interest rate, increases domestic credit and does not affect domestic prices. These countries' monetary policies can explain the non-significant effect of liquidity inflows in their domestic economies. Particularly, if we consider the achievements of inflation targeting (implemented since the early 2000s), we can see that they explain domestic prices' lack of responsiveness. Moreover, as monetary authorities also implement reserves accumulation policy, it could affect the exchange rate if we focus on mercantilist motives for international reserves. Besides, it seems that ease of financing may not be transmitted into domestic market since domestic credit remains non-significant. The comparison of IRFs (Figure 3.9) indicates that the only noticeable result is related to the response of international reserves. Hence, this response changes depending on the selected date. As international reserves' sensitiveness is higher during global excess liquidity dates than during regular dates, this is coherent.

The second model shows that residuals' pattern (Figure 3.10) is similar to the previous model. This is particularly true when considering the variability of reserves of the interest rate and of the exchange rate. Impulse response functions' results (Figure 3.11) are in line with first model's result interpretation, except for two major points. It appears that international bank flows do not really affect domestic reserves but significantly affect the short-term interest rate –according to the 5 percent quantile– by increasing them during the 3 quarters that follow the shock. It seems that the Bank of Thailand reacts vigorously through its policy rates to prevent the transmission of foreign ease of financing to domestic credit. Nevertheless, it seems that the increase of the interest rate significantly helps to isolate effects of liquidity inflows on domestic prices. Hence, it reveals that monetary authorities may strongly commit to inflation targeting. Finally, the comparison of IRFs (Figure 3.12) shows that a positive shock of cross-border credit has greater effects on the interest rate during dates of relative excess liquidity. It reveals central banks' commitment to limit the effects of global ease of financing on their domestic credit markets. It also shows the different impacts of the interest rate's magnitudes on domestic price evolutions. It demonstrates that despite non-significant effects, central banks' reactiveness on their policy rates also affects domestic prices' path.

3.4.3. Country level analysis: Malaysia

Concerning first model's results (based on the monetary aggregates as global liquidity indicator), residuals (Figure 3.13) show that only reserves and domestic credit vary over time. The fact that the country also uses inflation targeting (with managed floating exchange rate) could explain the overall stability of the exchange rate and of inflation during the considered period. According to IRFs' results (Figure 3.14), a positive shock of the global liquidity indicator shows that most variables are not significantly affected by the surge of global liquidity. In fact, only reserves respond positively and significantly to the shock during 3 quarters. This is certainly related to the country's commitment to manage its exchange rate and to isolate its economy from global liquidity conditions (especially the domestic credit market and the domestic price). Finally, according to the selected dates, the comparison of IRFs (Figure 3.15) does not reveal any significant difference of magnitudes between variables.

Besides, the second model's residuals (Figure 3.16) show similar patterns as in the first model (particularly reserves and domestic credit). Moreover, it seems that IRFs (Figure 3.17) from the estimation of the considered period reveal findings close to model (1). Hence, there are significant positive effects on reserves (probably to isolate their economy from the ease of financing in foreign credit markets), despite an effect on the interest rate that is close to zero. Finally, the IRFs comparison (Figure 3.18) shows that the only noticeable difference of magnitudes amongst variables lies in the interest rate' IRFs. Indeed, results reveal different responses to the interest rate by the Central Bank of Malaysia during the selected dates. The 2008Q1 and 2011Q2 positive shocks of international bank flows induce restrictive responses from the domestic central bank. Hence, the interest rate is increasing while the 2014Q2 positive shock –and in a lesser extent bank flows from 2003Q4 (the regular date)– provokes accommodative responses from the central bank by reducing the interest rate. Thus, outcomes on private domestic liquidity are different. This is noticeable through the important magnitude of the response of domestic credit –considering the policy rates evolution– during 2014Q2, and relatively to other selected dates. Moreover, responses of the interest rate expose monetary authorities' will of different policies during the considered periods. Nevertheless, it seems that these choices allow a sustaining inflation targeting policy, as bank flows have not affected domestic prices.

3.4.4. Country Level Analysis: India

First model's residuals (Figure 3.19) are varying significantly for every domestic variable of interest. This is particularly true for the exchange rate, reserves, the interest rate, private liquidity and inflation. Moreover, results show that the GFC has been accompanied by a peak of variability during the crisis period. In regards to IRFs (Figure 3.20), a positive shock of global monetary liquidity exerts a significant positive response of reserves while effects on other variables are not significantly different from zero. This main result shows Bank of India's commitment over their reserves management policy to control the managed floating exchange rate. This result also reveals how a positive variation of reserves helps to reduce the foreign liquidity pass-through in the Indian economy. This is demonstrated by the non-significant results of other variables. Concerning the comparison of IRFs' results (Figure 3.21), it is important to stress that India's policy rates did not have any major change until 2011. Hence, the major liquidity inflows that occurred during the second phase of global liquidity cycle compelled monetary authorities to raise their policy rates. Considering this, it seems that the lack of magnitude of the interest rate's IRF (during the 2011Q2 shock) is mainly explained by the consequent global liquidity pass-through that affected India's economy (changes in policy rates could not fully sterilise it).

As a result, the magnitude of credit's IRF is more important than those of other selected dates' IRFs. The second model's results (based on the cross-border credit aggregates) seem more interesting than the first model. Indeed, residuals (Figure 3.22) follow similar patterns –including a major GFC effect– but IRFs show that the Indian economy is more vulnerable to international bank flows. Moreover, IRFs (Figure 3.23) reveal that most variables

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react significantly to a surge of bank flows, except for the exchange rate. The lack of effects on the exchange rate lies in the central bank's commitment to sustain the managed floating currency. This result is closely related to the fact that significant effects of reserves are observed. Hence, in order to prevent undesirable appreciation pressures on its currency, the Central Bank of India intervened heavily on foreign exchange markets, which led to changes in official reserves. Interestingly, a significant positive response of policy rates does not fully prevent domestic credit expansion. To be precise, surges in global liquidity inflows are followed by a significant increase in domestic credit expansion. These results show that the ease of financing in global liquidity issuing countries is transmitted into the Indian economy. This is happening despite the fact that one of the main policy objectives of the Reserve Bank of India is based on the control of domestic credit. Nevertheless, the positive effect on the interest rate may also be the result of the Reserve Bank's choice to focus on inflation instead of domestic credit (since inflation exhibits a significant negative variation in response to a shock of global liquidity). Regarding the IRFs' comparison (Figure 3.24), the main noticeable result lies in the discrepancy of the outcomes of a positive shock of global liquidity on the exchange rate's IRFs. The results show that each period of surge of global liquidity affects the exchange rate differently. Yet, previous results show that the appreciation pressure on the exchange rate may be fully prevented by monetary authorities' reserves management.

3.4.5. Country level analysis: Brazil

The first model's residuals (Figure 3.25) show that all domestic variables have variability patterns (especially reserves, the interest rate and private liquidity). The analysis of IRFs (Figure 3.26) reveals that one positive global liquidity shock has significant positive effects on the exchange rate, reserves and domestic credit. Reversely, a similar shock has non-significant effect on the interest rate and inflation. As the country has a floating exchange rate, Brazilian Real undergoes appreciation pressures in the aftermath of liquidity inflows. However, Brazilian authorities intervened on the foreign exchange market, as suggested by the positive response of their international reserves. In addition, since the GFC, they adopted important capital control measures in order to sterilise liquidity inflows. Interestingly, the Central Bank of Brazil does not rely heavily on its interest rate to reduce the effect of foreign liquidity inflows in its economy. This is particularly noticeable since results show that global liquidity developments are transmitted to the domestic credit market, which reacts significantly to a positive shock of global liquidity. However, the lack of reaction of monetary authorities on the interest rate may be interpreted as their willingness to achieve inflation targeting (as domestic prices are not affected by foreign liquidity inflows). IRFs comparison (Figure 3.27) shows magnitudes discrepancies between periods of global liquidity relative to normal periods. This result stress the importance of global excess liquidity spillovers. Thence, it has particular effects on the exchange rate, reserves and domestic credit. Moreover, these results show that the country's interest rate reacts differently depending on the shocks' dates. However, responses of the interest rate are not significant, which indicates that monetary authorities may not rely on policy rates to control domestic credit expansion. This is mostly because their main monetary policy objective remains inflation targeting. However, the principal interpretation that stems from the first model is the vulnerability of the Brazilian economy to foreign developments. This is particularly true in the domestic credit market, which is affected by global credit conditions.

Results from the second model indicate that residuals (Figure 3.28) follow similar patterns as in the previous model. Hence, IRFs (Figure 3.29) display identical evolutions for all variables. Results suggest that the Brazilian economy is also vulnerable to international bank flows as one positive shock of global liquidity affects significantly domestic credit's expansion. Moderate effects on the interest rate and domestic prices are retrieved. It highlights the choice of the Central Bank of Brazil to protect its inflation objective over the domestic credit market. Finally, the IRFs' comparison (Figure 3.30) confirms the previous model's observed results, except for IRFs from the regular date. Overall, IRFs of the interest rate and inflation show that monetary authorities reacted differently during each selected date to control inflation.

3.4.6. Country level analysis: Chile

Results from the first model indicate that only residuals (Figure 3.31) of the interest rate and reserves show variability over time. Moreover, as the country is one of the first economies experiencing inflation-targeting, the lack of volatility shown by inflation's residuals –and to a lesser extent exchange rate's residuals– may be explained by their choices of monetary policies (in order to reach their inflation target). Indeed, the Central Bank of Chile is known for achieving its targeted inflation for nearly three decades. Moreover, it reached low and stationary inflation since mid-1990, which may explain the stability path of inflation's residuals. As the Chilean monetary policy is anchored to annual inflation, monetary authorities rely mainly on policy rates as main channel of transmission of monetary policy changes in the Chilean economy. It explains *de facto* the variability of the interest rate over time. According to IRFs (Figure 3.32), results indicate that a positive shock on global liquidity only

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significantly affects domestic international reserves. It means that the Central Bank of Chile relies also on reserve management to reduce the effect of liquidity inflows in its economy (as they do not use any major capital control policy). The IRFs comparison (Figure 3.33) shows disparities amongst variables' responses on selected dates, except for reserves' responses that show homogeneity. Indeed, results confirm their reliance on reserve management to sterilise liquidity inflows in a context of liberalised capital account and floating exchange rate. Disparities amongst the interest rate's responses (according to the selected dates) may also demonstrate their choice of policy rates to achieve their inflation targeting objective, and to limit domestic credit expansion.

The second model shares common results with the first one, particularly as residuals (Figure 3.34) follow the same patterns. Differences are exposed by the analysis of IRFs (Figure 3.35) as a positive shock of international credit does not have a relevant effect on reserves, contrarily to the previous model. However, a positive shock implies a positive and significant response of the interest rate. Moreover, the remaining variables' responses are not significant. This results' interpretation may rely on the willingness of monetary authorities to focus on the interest rate in order to prevent the effect of international bank flows in the economy. This is somehow coherent in Chile's context of capital account liberalisation and inflation targeting policy. The interest rate's relevant effect (during one-quarter) probably means that monetary authorities want to effectively prevent the transmission of international ease of financing to its domestic credit market (as the effect on domestic credit is not significant). Additionally, the interest rate's variations do not affect their inflation targeting policy as domestic prices are not significantly different from zero in response to a positive shock of international bank flows. The IRFs comparison (Figure 3.36, for both selected and regular dates) does not show any disparities between variables.

3.4.7. General remarks on the country-level analysis

Overall, three major lessons can be learned with our findings. Firstly, countries fragilities to global liquidity developments are in line with Pradhan's assumptions regarding their choices of monetary policy (Pradhan, 2014; Pradhan et al., 2013). Moreover, as stated in (Azis and Shin, 2015), such choices are relative to major capital inflows from global liquidity phases. As a consequence, China is the least exposed country. This is mostly due to its monetary policy tools (such as the pegged currency, capital controls, reserves requirements and key interest rate). Indeed, these tools help monetary authorities to isolate the country from foreign developments. Other countries studied follow the typology previously mentioned in this paper (Table 3). Thus, it is confirmed that Chile, India, Malaysia, and Thailand are moderately exposed to global liquidity developments. On the opposite, despite the active management of capital inflows through capital controls, Brazil is the most exposed country of our sample. Secondly, amongst the moderately exposed countries, some differences are noticeable. Thence, countries following the inflation targeting policy are able to limit the consequences of global liquidity expansion. Furthermore, they are able to achieve inflation targeting with minor consequences on domestic private liquidity's developments. On the other side, India shows signs of exposure to international bank flows, as domestic private liquidity expansion and prices are influenced by global liquidity. Thirdly, despite the fact that Brazil is also following the inflation targeting framework, results confirm that this country is the most exposed country of this research. Indeed, even if monetary authorities are committed to inflation targeting, global liquidity's expansion has major consequences on the Brazilian economy. For instance, appreciation pressure on the exchange rate occurs, and the global ease of financing is transmitted to the Brazilian domestic credit market (as complementary monetary policy tools cannot fully sterilise global liquidity spillovers in the economy).

Table 3
Emerging Economies Exposure to Capital Flows Classification

Moderately Exposed Countries	Least Exposed Countries
Columbia	China
Chile	Israel
Czech Republic	Peru
India	Russia
South Korea	
Malaysia	
Thailand	

Source: Pradhan (2014)

4. CONCLUSION

The main objective of this paper is to investigate the monetary policy's effectiveness in receiving emerging economies during periods of excess liquidity. To this end, a country-level approach has been adopted. Results reveal that receiving countries tend to react differently to surges in global liquidity conditions, particularly during

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periods of global excess liquidity. Moreover, results confirm the typology established in (Pradhan, 2014; Pradhan et al., 2013)

regarding vulnerabilities of emerging economies. It is also found that these vulnerabilities may affect the efficiency of countries' monetary policies. Besides, results also indicate that the examined countries are generally affected by global liquidity's private components at different degrees. This is particularly right when considering how international banks are transmitting the ease of financing to domestic credit markets. This research also reveals that countries following the inflation targeting framework –Thailand, Malaysia, Chile and, in a lesser extent, Brazil– can limit liquidity inflows' consequences on domestic prices. Sometimes, it happens at the expense of other monetary objectives, such as domestic credit's expansion or countries' exchange rates. Finally, it seems that the choice of monetary policy (pegged currency, active reserve management and capital controls) implemented by the People's Bank of China helps to isolate the country from global liquidity developments. This is particularly relevant since China is known as a major liquidity-receiving country. Nevertheless, this study focuses on six countries, and it is thus impossible to generalise this analysis to other emerging economies. Yet, the main findings of this research help to identify trends in inflation targeting countries. To be precise, it highlights these countries' effectiveness in facing vulnerabilities that may affect them. To conclude, the generalisation of our results could happen with a large panel of countries, and with the help of a time-varying panel approach (an interacted panel VAR). Be as it may, this study could also be expanded with the introduction of net capital inflows in its models. It would provide a complete framework of global liquidity pass-through in receiving economies.

REFERENCES

1. *Azis, I.J., Shin, H.S., 2015. Managing elevated risk: global liquidity, capital flows, and macroprudential policy-an asian perspective. Springer Nature.*
2. *Borio, C.E., Lowe, P.W., 2004. Securing sustainable price stability: should credit come back from the wilderness?*
3. *Borio, C.E., Lowe, P.W., 2002. Asset prices, financial and monetary stability: exploring the nexus.*
4. *Brana, S., Djigbenou, M.-L., Prat, S., 2012. Global excess liquidity and asset prices in emerging countries: A PVAR approach. Emerging Markets Review 13, 256–267.*
5. *Bruggeman, A., 2007. Can excess liquidity signal an asset price boom? National Bank of Belgium Working Paper.*
6. *Del Negro, M., Primiceri, G.E., 2015. Time varying structural vector autoregressions and monetary policy: a corrigendum. The review of economic studies 82, 1342–1345.*
7. *Djigbenou-Kre, M.-L., Park, H., 2016. The effects of global liquidity on global imbalances. International Review of Economics & Finance 42, 1–12.*
8. *Gouteron, S., Szpiro, D., others, 2005. Excès de liquidité monétaire et prix des actifs. Banque de France.*
9. *Hodrick, R.J., Prescott, E.C., 1997. Postwar US business cycles: an empirical investigation. Journal of Money, credit, and Banking 1–16.*
10. *Kramer, M.C.F., Baks, K., 1999. Global liquidity and asset prices: Measurement, implications, and spillovers. International Monetary Fund.*
11. *Krüger, F., 2015. bvarsv: An R implementation of the Primiceri (2005) model for macroeconomic time series. URL cran. r-project. org/web/packages/bvarsv.*
12. *Landau, J., others, 2011. Global liquidity-concept, measurement and policy implications. CGFS Papers 45, 1–33.*
13. *Pradhan, M., 2014. La politique monétaire des pays émergents: les cinq dernières et les cinq prochaines années. Revue d'économie financière 117–140.*
14. *Pradhan, M., Rahman, R., Batori, P., Garner, J., Hjort, V., 2013. Emerging Markets: What If the Tide Goes Out? Morgan Stanley, Blue Paper.*
15. *Primiceri, G.E., 2005. Time varying structural vector autoregressions and monetary policy. The Review of Economic Studies 72, 821–852.*
16. *Roffia, B., Zaghini, A., 2007. Excess money growth and inflation dynamics. International Finance 10, 241–280.*
17. *Rüffer, R., Stracca, L., 2006. What is global excess liquidity, and does it matter?*
18. *Shin, H.S., 2014. The second phase of global liquidity and its impact on emerging economies, in: Volatile Capital Flows in Korea. Springer, pp. 247–257.*

ANNEXES

China – TVP-VAR – Model 1

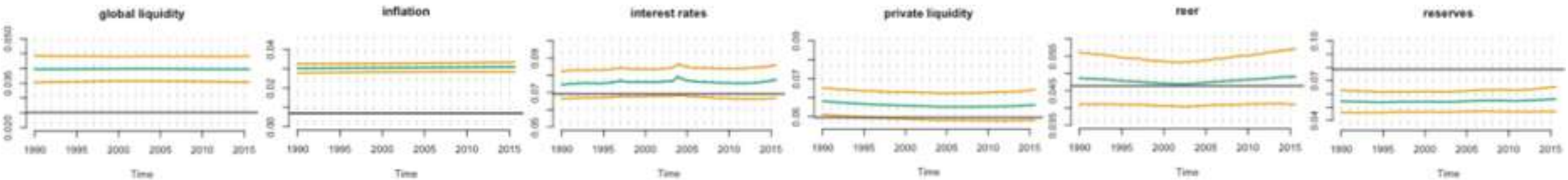

Figure 3.1

Time-varying residuals standard deviations

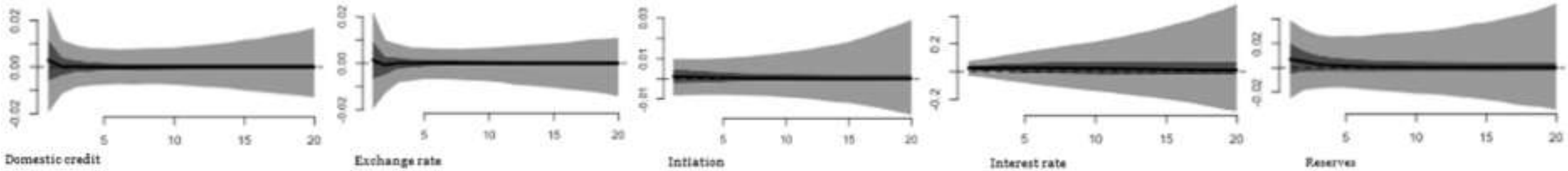

Figure 3.2

Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

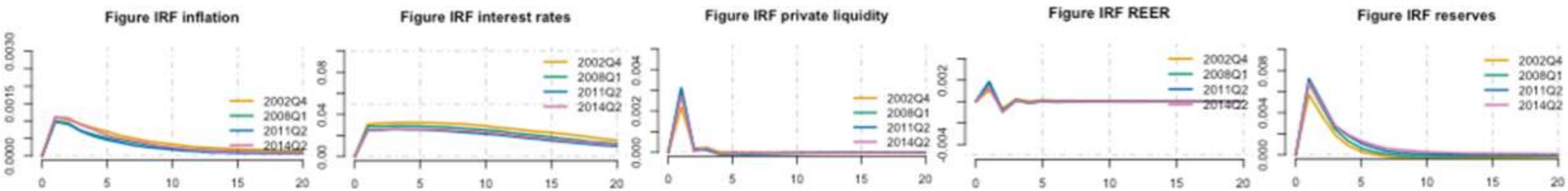

Figure 3.3

IRFs according to selected dates

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China – TVP-VAR – Model 2

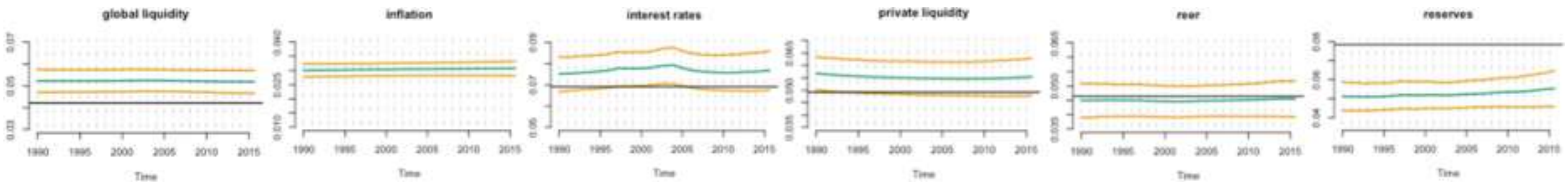

Figure 3.4

Time-varying residuals standard deviations

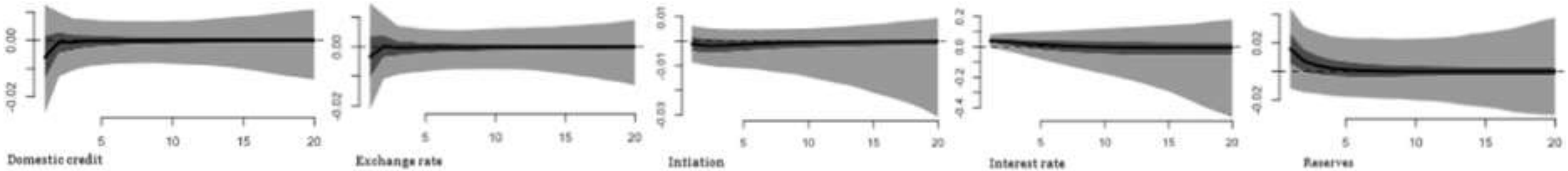

Figure 3.5

Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

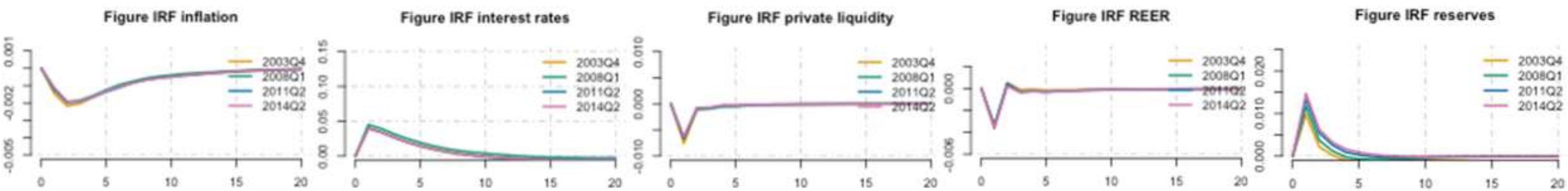

Figure 3.6

IRFs according to selected dates

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Thailand – TVP-VAR – Model 1

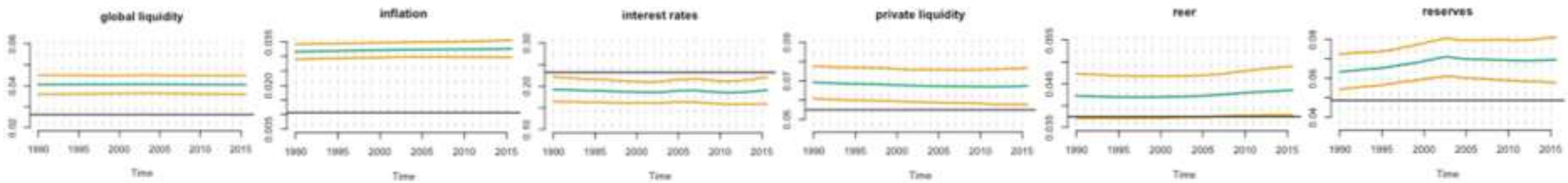

Figure 3.7
Time-varying residuals standard deviations

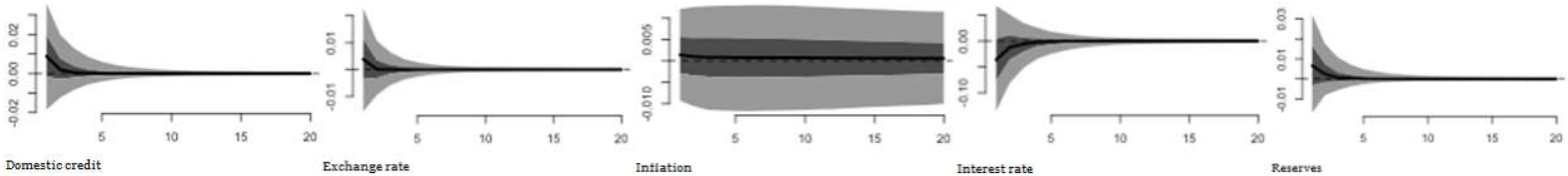

Figure 3.8
Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

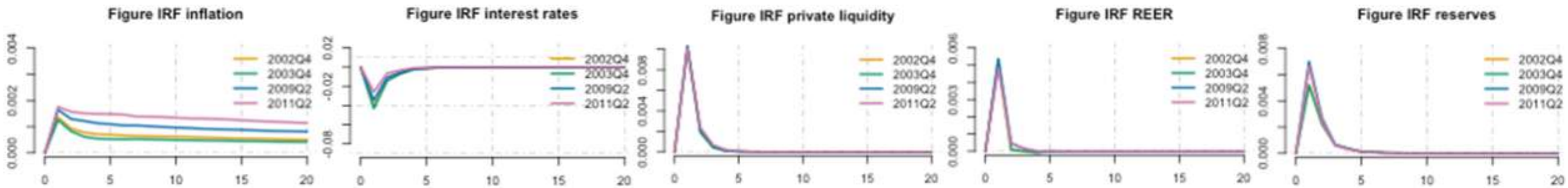

Figure 3.9
IRFs according to selected dates

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Thailand – TVP-VAR – Model 2

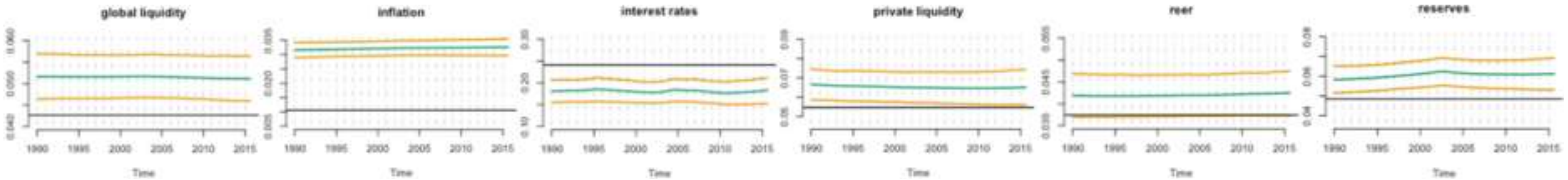

Figure 3.10
Time-varying residuals standard deviations

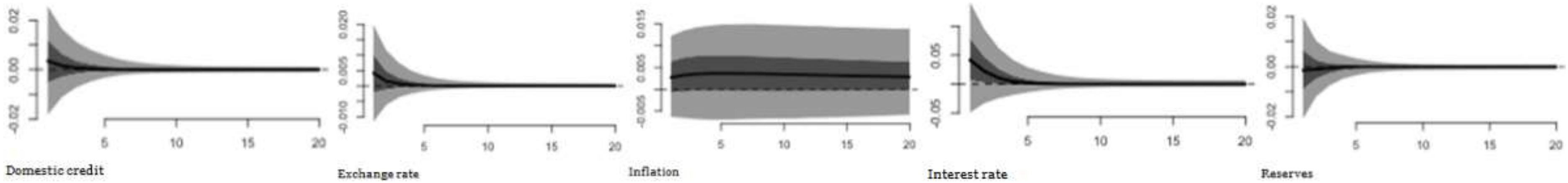

Figure 3.11
Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

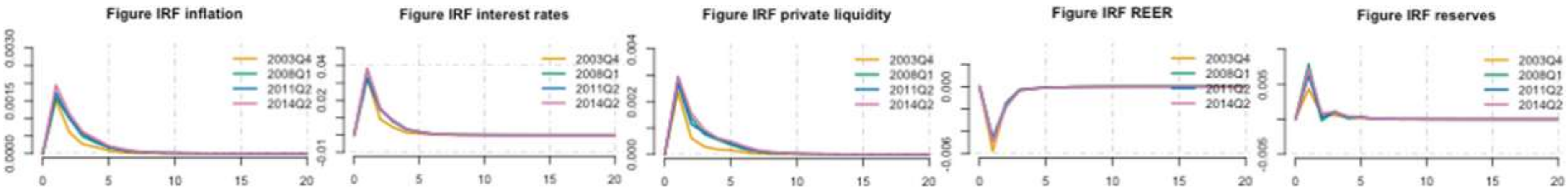

Figure 3.12
IRFs according to selected dates

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Malaysia – TVP-VAR – Model 1

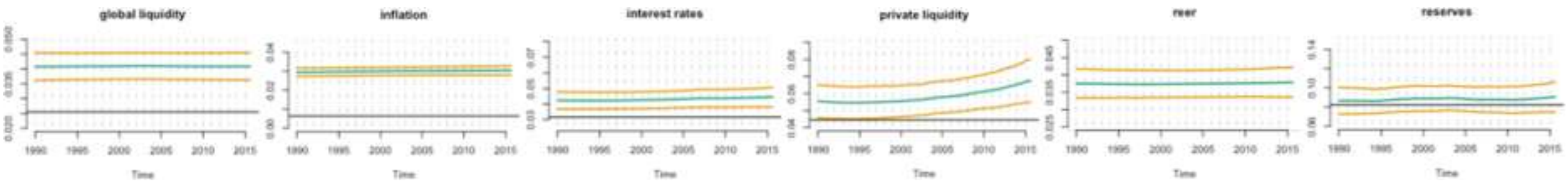

Figure 3.13
Time-varying residuals standard deviations

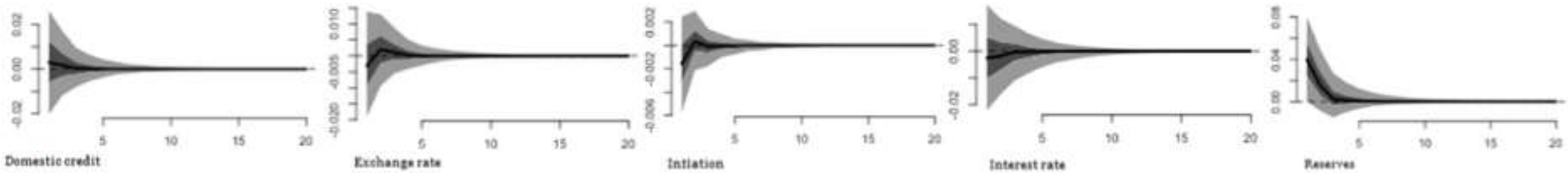

Figure 3.14
Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

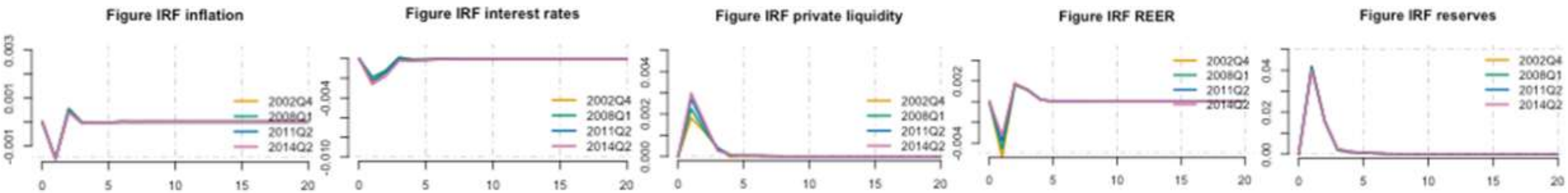

Figure 3.15
IRFs according to selected dates

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Malaysia – TVP-VAR – Model 2

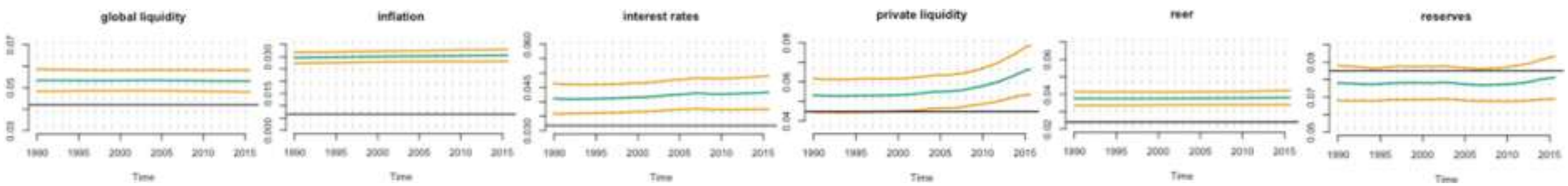

Figure 3.16
Time-varying residuals standard deviations

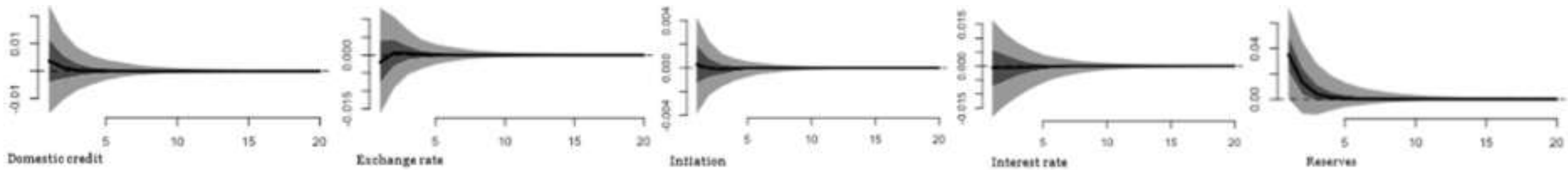

Figure 3.17
Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

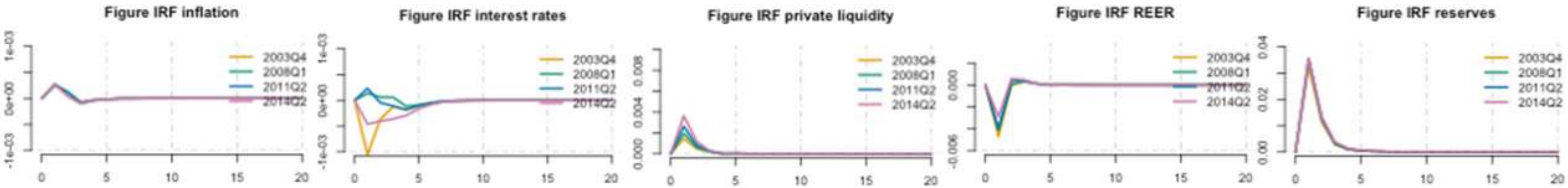

Figure 3.18
IRFs according to selected dates

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India – TVP-VAR – Model 1

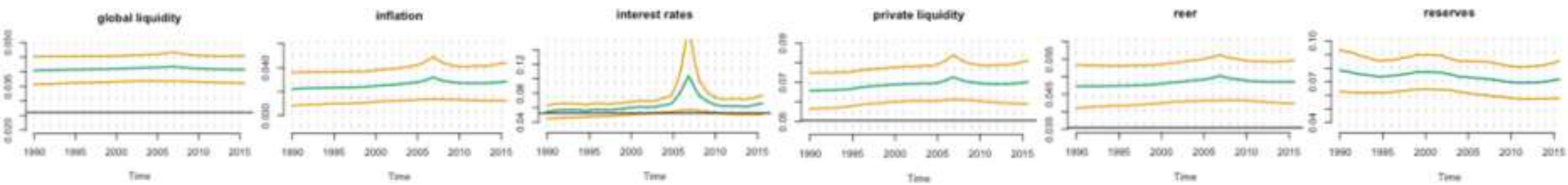

Figure 3.19
Time-varying residuals standard deviations

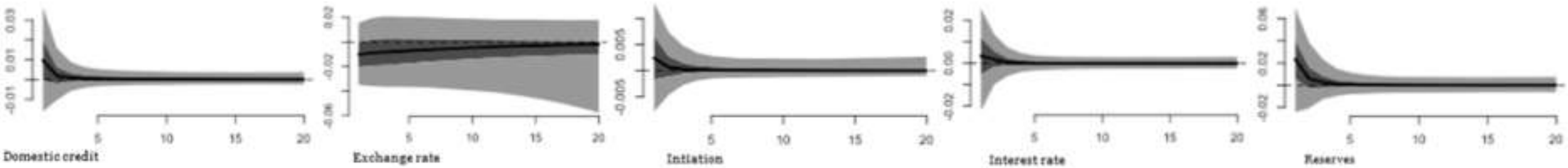

Figure 3.20
Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

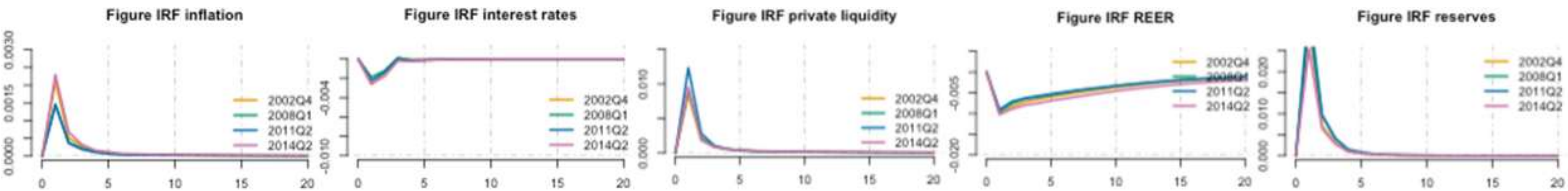

Figure 3.21
IRFs according to selected dates

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India – TVP-VAR – Model 2

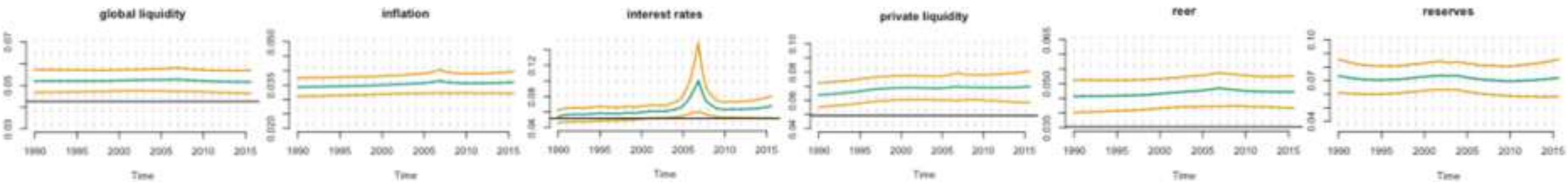

Figure 3.22
Time-varying residuals standard deviations

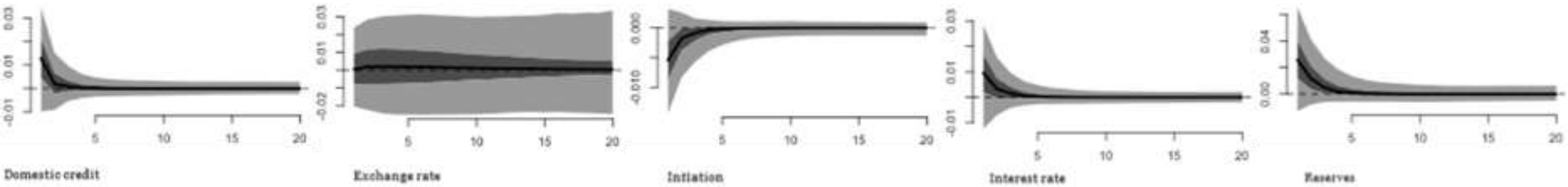

Figure 3.23
Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

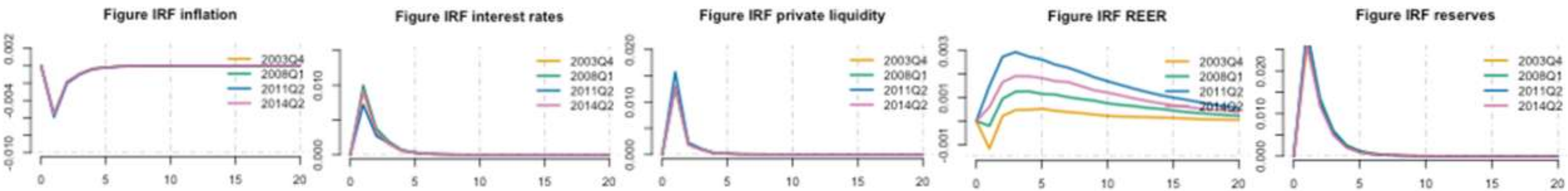

Figure 3.24
IRFs according to selected dates

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Brazil – TVP-VAR – Model 1

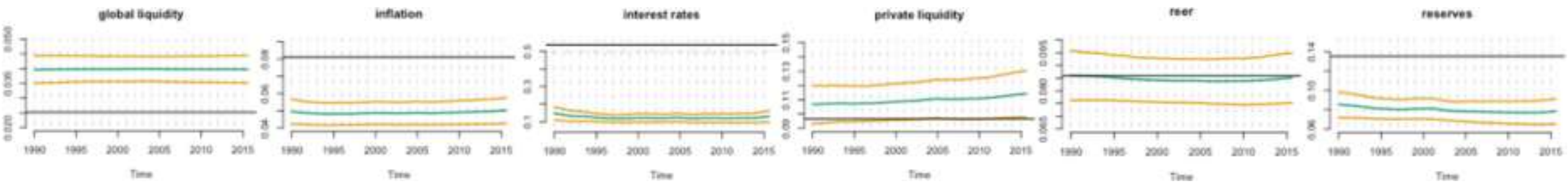

Figure 3.25
Time-varying residuals standard deviations

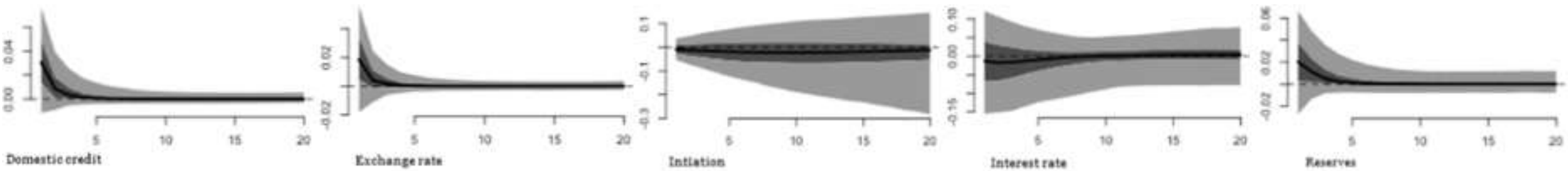

Figure 3.26
Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

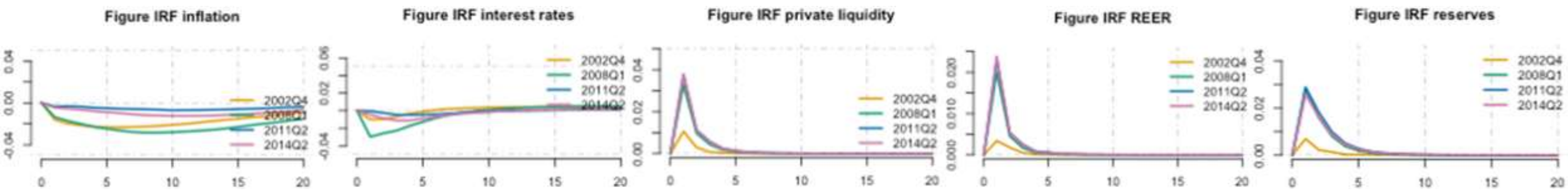

Figure 3.27
IRFs according to selected dates

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Brazil – TVP-VAR – Model 2

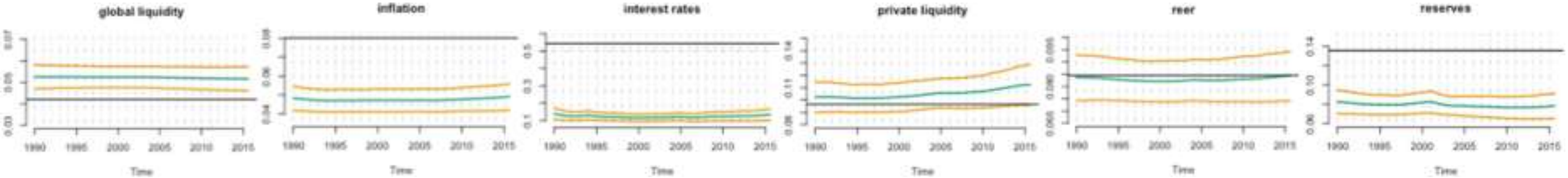

Figure 3.28
Time-varying residuals standard deviations

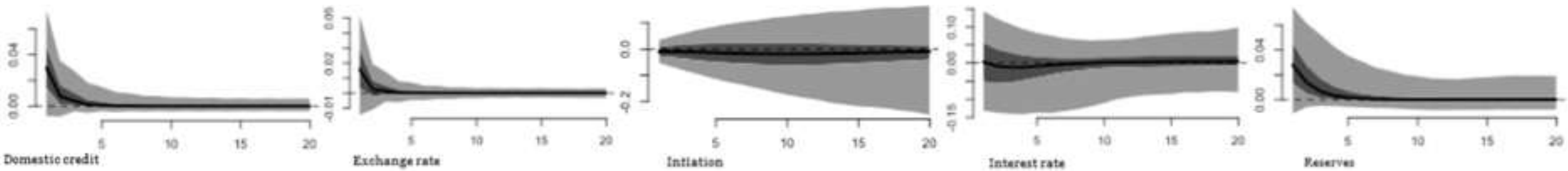

Figure 3.29
Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

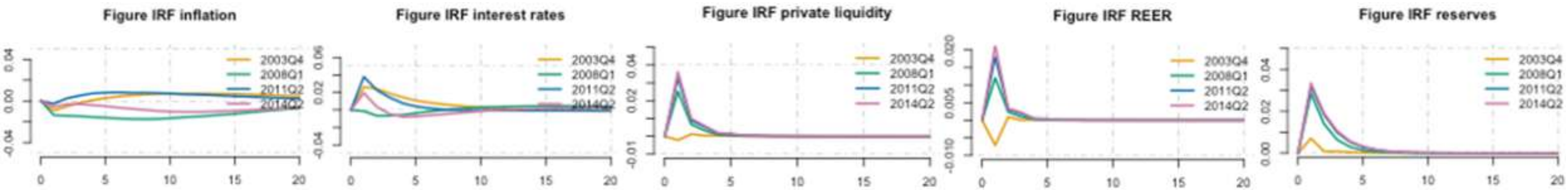

Figure 3.30
IRFs according to selected dates

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Chile – TVP-VAR – Model 1

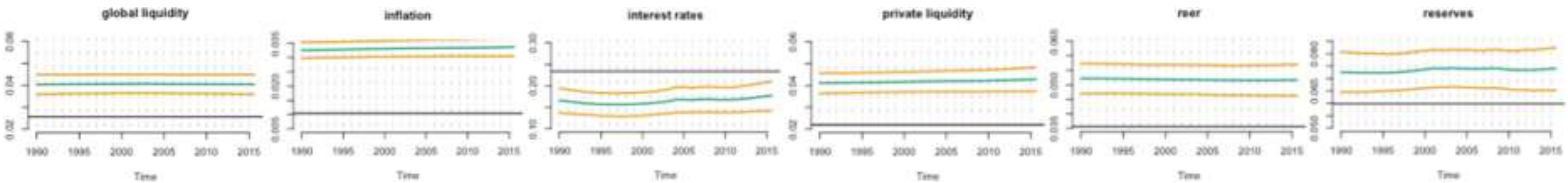

Figure 3.31
Time-varying residuals standard deviations

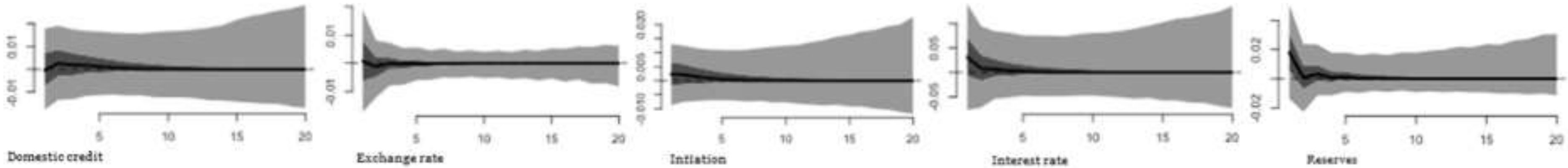

Figure 3.32
Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

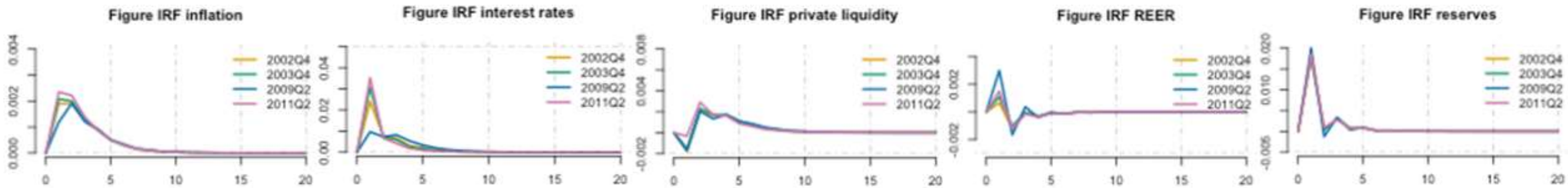

Figure 3.33
IRFs according to selected dates

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Chile – TVP-VAR – Model 2

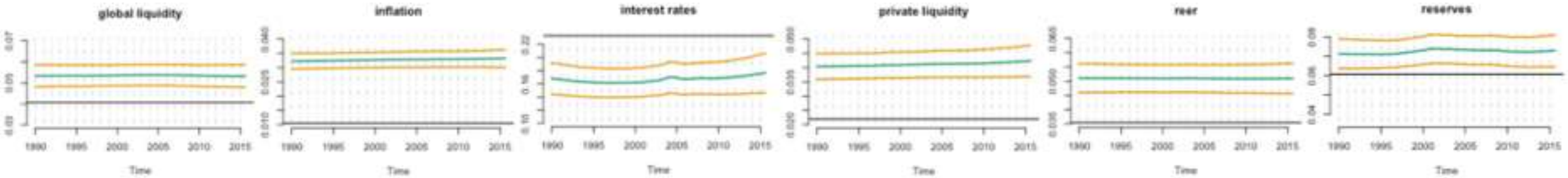

Figure 3.34
Time-varying residuals standard deviations

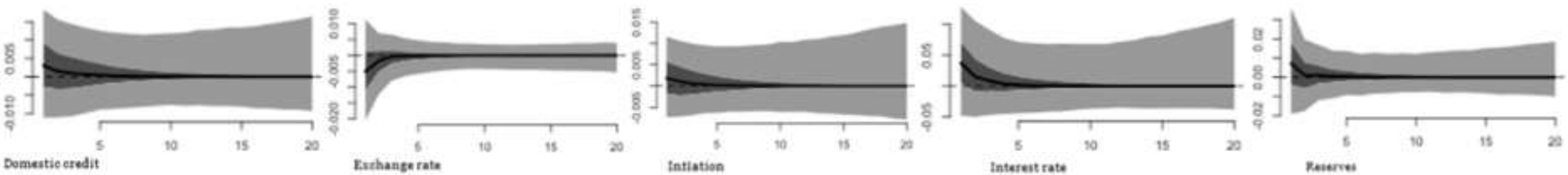

Figure 3.35
Variables' responses to a contemporaneous shock of global liquidity with respectively 5 and 95 percent quantiles

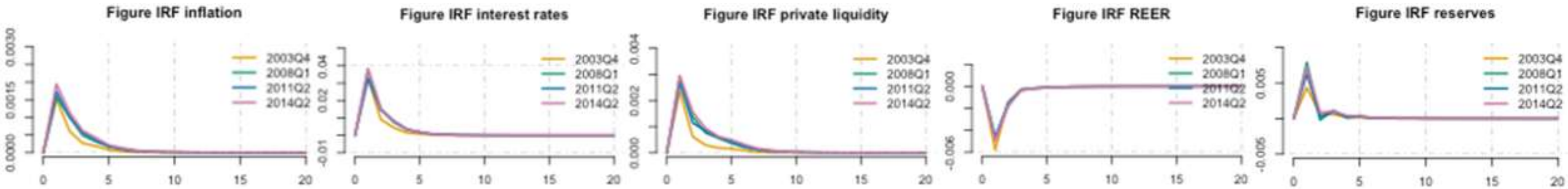

Figure 3.36
IRFs according to selected dates