## THE EFFECT OF LOW INTEREST RATE ON BANK FUNDING STRUCTURES

## AUTHORSHIP STATEMENT

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## INTRODUCTION

In recent years the economy has been governed by low interest rates set by the European central bank (hereinafter ECB). The ECB Asset Purchase Programme (hereinafter APP) is the latest measure employed by the ECB under which public and private sector securities will be purchased in order to tackle a prolonged period of low inflation. The programme was intended to be carried out from march 2015 until the end march 2017, or until inflation became consistent with the ECB goal for inflation to remain slightly below $2 \%$ over the medium-term (ECB, 2016). During the early liquidity phase of the financial crisis starting in 2007, many banks - despite meeting the existing capital requirements - experienced difficulties because they did not prudently manage their liquidity (Basel Committee on Banking Supervision, hereinafter BCBS, 2014).

Because of the unconventional monetary policy of the ECB, which decreased market interest ratest, banks had to rethink their business activities. In recent years, most of the transitions have been between the retail and wholesale-funded models of commercial banks. The group of trading oriented banks is fairly constant throughout the period. However, the post-crisis direction of change in bank business models is very different from that prevailing prior to 2007 (Roengpitya, Tarashev, \& Tsatsaronis, 2014, p. 63). Banks have significantly changed their business models and practices, one example being greater focus on retail business.

Unconventional monetary policies have led to extremely low and even negative market rates. As interest rates are low, banks have difficulties drawing in new deposits that would enable them to offer loans to their customers. Due to decreased interest margins (profit margins) banks have become creative, seeking profits by other means, for example by increasing fee income. Another impact of decreased deposits is that banks are forced to search for other sources of liquidity, which imply new sets of challenges.

The ECB engaged a covered bond purchase programme (hereinafter CBPP) that began in May of 2009 and lasted for a 12-month period, in order to stimulate the covered bond market with a nominal value of $€ 60$ billion. The CBPP had a number of main objectives, such as easing funding conditions, encouragement of increased funding to enterprises and clients and improvement of market liquidity in the private debt securities sector (Beirne et al., 2011, p. 5).

The banking environment is changing rapidly, which means that banks will have to become forward looking in order to grow. A variety of forces impact banking, such as new banking customers and demographics. Due to social and technological factors affecting consumer needs, banks will have to create tailored products. Trust in the banking sector has diminished and banks will have to find a way to regain trust. One issue remaining in the banking sector is so-called "shadow banking", which comprises non-banking financial entities that provide
similar services as banks. The size of the shadow banking sector varies greatly among European countries.

Roengpitya et al. (2014, p. 63) find that the crisis had reshaped the banking sector and affected its concentration and business model mix. Institutions that have failed or have been acquired by others have increased banking concentration, despite stricter regulation on systemically important banks. Banks that survived readjusted their strategies according to the business models implied. Deregulation and financial innovation led to a profound change of bank business models while altering their incentives to take on risks. These changes impacted on several dimensions, such as size, recourse to non-interest income revenues, corporate governance, and funding practices, which, in turn, were affected by the macroeconomic and competitive environments (Altunbas, Manganelli, \& Marques-Ibanez, 2011, p. 11).

Analysis of the banks' business models can provide market participants, depositors, creditors, regulators and supervisors with a useful tool to better understand the nature of risk attached to each bank business model and its contribution to systemic risk throughout the economic cycle, say Ayadi and De Groen (2015, p. 9).

Because of the specialness of the banking industry, which is providing everybody from consumers to large corporations and governments with resources, a strong and resilient system is the foundation of economic growth. Basel III addresses two issues of banking, capital requirements and liquidity requirements. Capital requirements can divided into three pillars: Pillar 1 addresses issues of capital, risk coverage and containing leverage, Pillar 2 addresses risk management and supervision, and Pillar 3 addresses market discipline.

Basel III gives guidelines for the management of banking risks and tells that the tool for managing these risks is banking asset-liability management (hereinafter ALM), which is a generic term that for bankers, means high-level management of a bank's assets and liabilities focused on two main risks in the financial market, interest rate risk and liquidity risk (Choudhry, 2011, p. 144).

As Esposito, Nobili and Ropele (2015, p. 486) note, interest rates are volatile and difficult to predict. Inadequate management of interest rate risk can erode banks' capital and lead to macroeconomic and financial instability. Interest rate uncertainty along with imbalances between rate sensitive assets and liabilities has a significant impact on earnings volatility and consequently stock returns, say Brewer, Deshmukh and Opiela (2014, p. 231).

Equally important are guidelines for mitigating liquidity risk. One of these is the Principles for sound liquidity risk management and supervision, which lays fundamental principles for the management and supervision of liquidity risk (BCBS, 2008).

Liquidity risk means that a bank will not be able to access that cash or have it in sufficient amounts in the first place, in order to meet funding requirements. For banking business the so-called liquidity funding risk is important, and as Drehmann and Nikolaou (2013, p. 2173) define it, means the possibility that over a specific horizon the bank will become unable to settle obligations with immediacy. One metric used to measure liquidity risk is a bank's loan to deposit ratio (hereinafter LTD). LTD measures the relationship between lending and customer deposits, and is usually reported monthly. It is also a measure of a bank's selfsustainability, conveying a message about the bank's liquidity position (maturity structure) and concentration of funding that is inherent in different business models. The Bank of Slovenia proposed a metric called gross loans to deposits flow (hereinafter GLTDF) as a macroprudential instrument that is a supplement to LTD (Bank of Slovenia, 2014).

Banks face a number of challenges due to the emergence of low or even negative interest rates. A tightening of monetary policy raises the external finance premium, and may affect bank lending through either a demand-side (balance sheet channel) or a supply-side (bank lending channel) effect (Goddard, Molyneux, Wilson, \& Tavakoli, 2007, p. 1927). Unintended effects could emerge due to the fact that a rise in the official interest rate could harm the Euro-area countries whose economic recovery is still underway, and in turn renew sovereign debt tensions (Esposito et al., 2015, p. 486).

The purpose of this research is to analyse the relations among interest rate and bank funding structure, and to shed some light on how the phenomenon of low (negative) interest rate risk affects banking business. The research will focus on country level aggregate data available from the ECB's publicly accessible data base. I will try to present how this correlates with two ratios, the loan to deposit ratio (LTD) and the gross loan to deposit flow ratio (GLTDF). The focus of the research will be on the effect of interest rate on bank funding structure with segmentation of financial and non-financial customer loans and deposits for countries in the European monetary union.

The main research questions are:

1. How and in what manner do interest rates correlate with bank funding structure?
2. How do interest rates correlate with two ratios - LTD and GLTDFq?

Data will be collected from a publicly available database held by the ECB Statistical Data Warehouse. The data will include aggregated balance sheet items for 19 countries in the Euro area. I will include ten years of data, starting from the second quarter of 2006.

First I shall review the current economic conditions that have lead to low interest rates, followed by a description of central bank functions including quantitative easing. I shall also describe banking typology, its funding structures and relevant Basel III liquidity regulation standards, followed by a brief description of risks and risk management. Finally, I shall
perform a data analysis, by which I will attempt to answer the two main research questions.

The methodological approach will include a review of the literature relevant to the purposes of this thesis, along with a description of underlying issues in order to create a theoretical base. Secondly, I shall perform a quantitative analysis of gathered data, and attempt to answer the two research questions using standard statistical analyses, such as descriptive statistics to determine the average value of the LTD ratio in the Euro monetary area. Additionally, I will use Pearson's correlation methodology in order to describe interactions among interest rates and aggregated balance sheet items of banks in the Euro area.

## 1 ECONOMIC CONDITIONS IN EUROPE

The global financial crisis of 2007 was caused by a housing bubble in the US, from mid2006 to mid-2008, during which housing prices dropped by $18 \%$. Many borrowers were unable to meet mortgage payments. Large financial institutions became insolvent and unable to pay their debts, and despite intervention from the US Federal Reserve, Treasury stocks began to tumble.

Lending expansion was financed by creation of collateralized debt obligations (CDOs). More specifically, mortgage backed securities in which mortgages were pooled, packed together and sold, as low credit risks with very high credit ratings. These were purchased by a large number of investors, insurance companies, foreign governments and central banks who then resold them in various tranches creating many layers and different payment priority rights. Because the risks were increasing interest payments were also increasing. Security rating agencies played an important role in worsening the situation by giving them top investment grades without sufficient information.

In Europe the financial crisis impacted the Euro area sovereign spreads. The first to be affected were Irish banks. The intervention of the Irish government may have played a key role in further developments of Euro area sovereign spreads. In October of 2009 the Greek Prime Minister disclosed information about severe fiscal problems, with later disclosure of information about the public deficit, which doubled the previous estimate ( $12.7 \%$ of 2009 Greek GDP).

Central banks responded in attempts to mitigate the financial disruption in order to restore the economy. The initial action was to reduce the level of interest rates in order to encourage a defrosting of the system that would consequently lead to investment, consumption and borrowing. As interest rates approached their lower bounds, the central banks had to pursue less conventional monetary policies, generally known as quantitative easing (QE) (Albu, Lupu, Călin, \& Popovici, 2014, p. 123), in order ensure the stability of the financial system.

As mentioned, the latest such venture was the ECB's APP, the objective of which was to
provide additional monetary stimulus to counter increasing deflationary risks and to ease the borrowing conditions of households and firms. Under the programme, purchases of public and private securities were combined, amounting to $€ 60$ billion monthly, with the intent to stabilize inflation (Altavilla, Carboni, \& Motto, 2015). The QE strategy was first applied in 2001 by the Bank of Japan and was also used by the US Federal Reserve Bank, the European Central Bank, and the Bank of England during the fiscal crisis that began in 2008. Due to the complexity of modern economies, it is difficult to evaluate whether QE had a beneficial effect in any particular circumstance, although some claim these measures were effective in improving economic conditions (Boslaugh, 2013).

As Koetter, Podlich and Wedow (2017) say, APP has been an important instrument of monetary policy during the sustained near-zero interest rates since the financial crisis. Unconventional monetary policy affects banks in three ways. Firstly, the direct pass-through channel reduces the re-funding costs of banks, which increases lending and investment. The second channel signals the actions of central banks to reduce general uncertainty in financial markets. The third main channel through which APP can influence credit and deposit market competition is the portfolio rebalancing channel.

There is also criticism regarding QE , with many news headlines describing those measures. One such case is the interesting view of Jong-Wha (2016), describing the adoption of a negative interest rate policy by the ECB and Bank of Japan (BoJ), which essentially means charging a fee for bank reserves, with limited effects on inflation, and some are even considering so-called "helicopter drops" or "helicopter money", which includes the distribution of printed money directly to the public with a commitment from the central banks never to withdraw it. The main issue with this is what is called zero lower bound, as Yu (2016) points out, central banks cannot further stimulate the economy by cutting interest rates, since negative interest rates mean that banks have to pay interest on cash they lend. A solution to this issue would be for banks to simply hold more cash.

Sjolin (2016) mentions the fears of Morgan Stanley, that the ECB policy of negative rates will erode bank profitability by 5 to $10 \%$ as a consequence of decreased lending operations. On the contrary, as Hannon (2016) mentions, some data support gradual economic recovery in the Euro area, as lending to the private sector was $1.2 \%$ higher in April than a year before, and overall growth was $1.1 \%$ despite high unemployment rates.

Some of the issues that the IMF report points out are that monetary and financial conditions were less accommodative as risk premiums rose to create tighter financial conditions and consequently rising market and liquidity risk. A number of different geopolitical issues have played a role in this downturn along with balance sheet deleveraging in the Euro area and emerging market economies that reduced investment and sparked savings worldwide (IMF, 2016a).

Caruana (BCBS, 2016b) in his speech, notes a few important issues regarding low interest rates (IR) like the spillover effect of low IR from advanced economies to less affected economies that work through various channels: from investors' search for yield and comovements in global bond markets, to policy reactions hoping to avoid large interest rate differentials. These spillovers can fuel the build-up of financial imbalances in the receiving economies, such as rapidly rising property prices, expanding credit and increasing indebtedness, including foreign currency debt. When these economies enter the late stages of the boom, their vulnerabilities may spill back to the originating economies.

The IMF report (2016a) also points out issues weighing on European banks, such as bank profitability issues caused by non-performing loans (NPLs), transition to different business models and regulatory challenges. On the other hand, a report from CIMA (2010) states that lower growth may be a reflection of stricter regulation if based on comparison of profitability from previous years.

Growth of the EU economy has been slow compared that of the US or Canada, it being $0.2 \%$ in 2013, $1.5 \%$ in 2014 and $1.9 \%$ in 2015. Higher real disposable household income and increased profit margins of companies meant that debts were served better, meaning that depreciation of the Euro and decline in oil price has been less pronounced (EBF, 2015a).

The EBF (2015b) economic outlook predicts that the Euro area will moderately grow by $1.4 \%$, European banks will face a protracted period of low inflation, whereas public finances continue to slowly adjust, there will be slightly increased employment and the ECB's main IR will remain unchanged.

## 2 FINANCIAL INSTITUTIONS AND BANKING INDUSTRY

### 2.1 Financial institutions

With the term financial institution, Saunders and Cornett (2008, p. 2) describe companies such as banks, credit unions, insurance companies and mutual funds that have performed the essential function of channelling funds from those with surplus funds (suppliers of funds) to those with shortages of funds (users of funds), and have special skills and knowledge in their role of transferring funds.

Banks and other financial institutions are exposed to a variety of risks, which challenge normal business operations on a daily basis. Risk management is a discipline that is growing in importance, but moreover, shows how to change strategy in order to bring the risk return trade-off in line with the best long- and short-term interests of the institution (Van Deventer, Imai, \& Mesler, 2013, p. 6). No financial institution should be exempt from risk management if it wishes to survive and protect the interests of its stakeholders, shareholders and customers. Technological development has influenced banking business, ranging from basic

IT (information technologies) like ATMs and FTPOS, to online services (digital banking), which, has decreased banking costs. Because there are many, yet similar banks on the market offering services and competing for market share, lowering operating costs can create large improvements in bank earnings. Equally important is the implementation of information technologies (IT) security with goals of protecting users of advanced IT services.

There are various financial institutions each providing different services. Insurance companies' primary function is to protect individuals and corporations (policyholders) from adverse events (Saunders \& Cornett, 2008, p. 66). Insurance contracts range from life insurance to non-life insurance contracts. Capital rules for insurance companies called Solvency II is a directive which was adopted in November of 2009 (European insurance and occupational pensions authority, 2016) and lays down standards similar to Basel III.

Pension funds are retirement plans funded by corporations or government agencies that similarly invest in bonds, stocks, mortgages, hedge funds, private equity, and real estate. In traditional plans, the plan administrators determine how to invest the funds; in self-directed plans, all individual participants must decide how to invest their own funds. Many companies are switching from traditional plans to self-directed plans, partly because this shifts the risk from the company to the employee (Brigham \& Erdhardt, 2013, p. 26).

Mutual funds and hedge funds are financial intermediaries that pool the financial resources of individuals and companies and invest in diversified portfolios of assets (Saunders \& Cornett, 2008, p. 118), which reduces risks by diversification, rendering possibilities of achieving economies of scale (Brigham \& Erdhardt, 2013, p. 25). There are different types of funds tailored to the investors' risk preferences. Hedge funds are subject to much less regulation than mutual funds. Due to supposedly sophisticated knowledge of investors, hedge funds are much less regulated than mutual funds, note Brigham and Erdhardt (2013, p. 26). Many hedge funds had high returns during 1990s, which attracted more investors. In order to maintain high returns, hedge funds began to pursue riskier investment strategies that were largely unhedged, causing high loses during the financial crisis of 2007, as a result of sub-prime mortgages.

### 2.2 Macroeconomics of banking and central banks

The core function of central banks anywhere in the world is to manage monetary policy with the aim of achieving price stability, to prevent liquidity crisis and financial crisis, and to ensure the functioning of the payments system, as described by Casu, Girardone and Molyneux (2006, p. 110). In order to implement this target, the central bank uses its monetary policy instruments (conducts open market operations) to affect liquidity in the money market's policy stance, so that the interbank rate is closely aligned to the operational target rate set by the prevailing monetary stance.

The ECB was formed in 1999 with 11 initial EU member states and has the responsibility of conducting monetary policy in the Euro area. The legal basis of the single monetary mechanism is the Treaty on the Functioning of the European Union, as well as the Statute of the European System of Central Banks and of the ECB. The European System of Central Banks (ESCB) comprises the ECB and national central banks of all EU members whether they have adopted the Euro or not. The main objective of the Eurosystem is to maintain price stability and to safeguard the value of the Euro, which is essential for economic growth.

### 2.2.1 Central bank functions

Central banks perform activities to foster economic growth without inflation and have the same basic functions. Monetary policy is part of five macroeconomic policies that governments conduct. Other policies include fiscal policy, exchange rate policy, price and income policy (inflation management) and national debt policy. Monetary policy is in the domain of the central banks and is one of the main policies employed to influence interest rates, inflation and credit availability through changes in the money supply. Banks can alter the required reserve ratio to control bank lending or the money supply. Commercial banks usually hold a portion of reserves in order to meet daily liquidity needs. The form of instrument that provides reserves are repos ${ }^{1}$ (Matthews \& Thompson, 2008, p. 245).

Another important role that central banks have is to act as a lender-of-last-resort, as Casu et al. (2006, p. 110) and Mankiw (2012, p. 330) explain, this means that a central bank is a lender for those who cannot borrow anywhere else. This is done in order to protect depositors, to prevent panic withdrawals and to maintain overall stability of the banking system.

The importance of central banks, raises the question of whether central banks should be independent from political influence and pressure in conducting their core functions, especially monetary policy. As Blancheton (2015, p. 103) sees it, central bank independence is viewed as a means to mitigate an inflationary bias that may arise under a discretionary policy. Casu et al. (2006, p. 127) point out that some studies suggest central bank independence is important because it helps to create a better monetary policy, rendering lower inflation rates. Independence is expressed in two different areas, goal independence (setting goals for monetary policy) and operational independence (independence from political influences).

### 2.2.2 Money and inflation

${ }^{1}$ Overnight repo or repurchase agreement, where banks sell securities for cash and repurchase them the next day at a higher price, are used by central banks as a means of regulating the money markets (Collin 2005, p. 249).

Mankiw (2012, p. 324) defines money as the set of assets in the economy that we regularly use to buy goods and services from each other. The use of money represents sets of coins and notes with which we can run daily errands, and takes two forms; fiat money (without intrisnsic value) and commodity money (has intrinsic value - eg. gold) (Mankiw, 2012, p. 326).

The formal definition of what constitutes money is defined by central banks by use of the term money aggregates. The ECB defines three such aggregates. The first is narrow money or M1, including banknotes, coins and overnight deposits, the second is what they call intermediate money or M2, comprising narrow money and deposits with maturity up to two years and deposits redeemable at a period of notice of up to three months. The definition of M2 reflects the particular interest in analysing and monitoring a monetary aggregate that, in addition to currency, consists of liquid deposits. The last is called broad money or M3, comprising M2 along with marketable instruments issued by monetary financial institutions ${ }^{2}$ with a high degree of liquidity and price certainty, thus making them close substitutes for deposits (ECB, 2016).

Mankiw (2012, p. 332) remarks that since demand deposits are held by banks, banks’ behaviour can influence the quantity of demand deposits in the economy and therefore the money supply, which is managed by controlling reserves. The quantity theory of money is a theory asserting that the quantity of money available determines the price level and that the growth rate in the quantity of money available determines the inflation rate (Mankiw, 2012 p. 351 ). When the central bank increases the rate of money growth, the long-run result is both a higher inflation rate and a higher nominal interest rate (Mankiw 2012, p. 359). Many factors influence the level and movement of interest rates, as noted by Saunders \& Cornett (2008, p. 192), and they depend on central bank's monetary policy strategy that dictates the levels and movements of interest rates. This is achieved by selling or buying short-term and long-term securities with the intention of affecting inflation of the money supply, and the level of interest rates.

### 2.2.3 Keynesian framework and ISLM model

Following the Great Depression of the 1930s, economic theory was unable to explain the cause of economic collapse, or to provide an adequate policy solution to restart production and employment. British economist John Maynard Keynes created a revolution in 1936 by overthrowing the economic idea of that time, that markets would provide full employment. The foundation of Keynes' theory is that aggregate demand (sum of expenditures by

[^0]households, businesses and governments) is the most important driving force in an economy and that free markets have no self-balancing mechanisms that lead to full employment. That is why Keynesian economists justify government intervention through public policies in order to achieve full employment and price stability.

Monetary policy could also be used to stimulate the economy - for example, by reducing interest rates to encourage investment. An exception occurs during a liquidity trap, when increases in the money stock fail to lower interest rates and do not boost output and employment (IMF, 2016b). A liquidity trap is created by zero lower bound interest rates. If rates are almost zero there is a possibility that monetary policy is no longer effective since nominal rates cannot be below zero. Rather than making a loan at a negative nominal interest rate, a person would just hold cash. Aggregate demand, production, and employment may remain trapped at low levels (Mankiw, 2012, p. 470).

Yu (2016, p. 5) argues that the nominal interest rate cannot go below zero because cash pays zero interest. If interest rates are set below zero banks have to start paying interest on the cash they lend to other banks - banks could get around that cost by simply holding onto the cash, rendering the negative interest rate policy ineffective. In practice, economists and policymakers have seen that even market interest rates can go negative, likely due to the costly and risky implications of cash storage.

The ISLM ${ }^{3}$ model is an extension of the Keynesian model, only more intricate. The ISLM model helps policymakers to predict what happens to aggregate output and interest rate if they decide to increase the money supply or increase government spending, answering questions about the usefulness and effectiveness of monetary and fiscal policy (Mishkin, 2004, p. 561). Kiley (2016) notes that the impact of any shift in government expenditure or adjustment in the nominal interest rate through forward guidance is limited, and monetary policy at the zero-lower bound should aim to boost the long-run price level.

### 2.3 Banking industry conditions in the EU

Goddard, Molyneux and Wilson (2001, p. 8) notice that the number of banks of any type in EU banking markets are decreasing due to mergers and acquisitions. Matthews and Thompson (2008, p. 2) mention three trends that have altered the activity and strategy of banking: deregulation, financial innovation and globalization. The paradox of globalization noted by Choudhry and Landuyt (2010, p. 4), is that opening the borders of previously isolated countries to free trade has created potential vulnerabilities for them. By embracing the free market principles and accepting money that came from international lenders results

[^1]in a build up of large sums of foreign debt. The integration and liberalization of European financial markets and payments, say Goddard et al. (2007, p. 1914), has placed substantial pressure on banks' traditional lines of business and in response banks have diversified into non-interest earning activities like mutual fund sales, insurance and private banking.

The ECB Report on financial structures (2015) provides data on the European banking sector and finds that the size and structure of the financial sector varies, and is least developed in most central and eastern European countries in the Euro area. Also that there are countries with large financial sectors in respect to GDP, namely Malta, Ireland, the Netherlands and Cyprus. The report finds that the financial sector shrank from 2008 to 2014, measured as the ratio of assets to GDP. Composing the wider financial sector ${ }^{4}$ across the Euro area countries, banks represent the largest share in most of the countries, accounting for between $20 \%$ and 95\% of total sector assets. The OFI sector is particularly developed in Luxembourg and Malta (where it represents $75 \%$ and $70 \%$ of total assets), but also in the Netherlands, Ireland, Belgium and Cyprus. The remaining countries in the OFI sector account for less than about $30 \%$ of total assets. The insurance sector is particularly developed in France, Germany, Belgium, Ireland and Italy. Finally, the pension fund sector is particularly developed in the Netherlands, Slovakia and Estonia. One issue is the interconnectedness of financial institutions arising from debt exposures, the largest exposure is from loans held by monetary financial institutions - banks (MFIs) and OFIs, followed by debt securities held by MFIs and investment fund shares held by ICPFs and OFIs. Holdings of shares are comparatively smaller.

The ECB (2015) report states that in larger banking systems such as France, Germany and Italy, the market is more fragmented, including strong savings and cooperative banking sectors. Market concentration in these markets is thereby lower. On the opposite side markets in smaller countries are less fragmented and highly concentrated as is the case in Cyprus, Estonia, Finland, Greece and Lithuania. Two exceptions that stand out are Austria and Luxemburg, which have banking structures similar to that of the larger countries due to the presence of a large number of foreign credit institutions.

A persistent issue of the banking sector is so-called "shadow banking", comprising nonbanking financial entities that provide similar services to banks, thereby diminishing roles that were traditionally in the domain of banks, such as accepting funding with deposit like characteristics, maturity transformation, transfer of credit risks and use of direct or indirect financial leverage, with addition to funding through securitisation such as securities lending and repurchase agreements/transactions (repo), as noted by the European Commission (2012). As the ECB report (2015) notes, out of roughly $€ 60$ trillion of total financial system assets in Euro area, more than $€ 23$ trillion are held by shadow banking entities. Shadow

[^2]banking entities ${ }^{5}$ have increased their share of total assets from $33 \%$ to $38 \%$ since 2009, while the assets of credit institutions have shrunk from $55 \%$ to $48 \%$. The shadow banking sector is also an increasingly important provider of funding to the Euro area economy, providing $€ 3.2$ trillion of funds to the Euro area’s non-financial sector in the form of loans, debt securities and equity financing. The size and structure of the financial sector varies and is least developed in most central and eastern European countries in the Euro area.

One of the problems with shadow banking is, as the ECB (2013) paper says, that the shadow banking activities of credit intermediation, liquidity and maturity transformation take place outside the regulated banking system and have also been a large contributor to the severity of the financial crisis. The reason for this is that the highly leveraged system is prone to sudden deleveraging, which can negatively impact credit provisioning, thus increasing volatility in the economy. Another issue is that in the Euro area provision of central bank liquidity to the banking sector is based on repo operations and through repo operation shadow entities have a direct link to the implementation of monetary policy. Securities lending and repo markets enable financial institutions to build direct exposures to each other, thus increasing interconnections and possible risk of contagion and creation of systemic failure.

The European Commission (2012) paper also sees some benefits of shadow banking like: being an alternate source for investors to bank deposits, because of their specialization they channel resources towards specific needs, they represent alternative funding for the real economy (if traditional banks become impaired), and constitute a possible source of risk diversification for the banking sector. Ari, Darracq Pariès, Kok, \& Żochowski (2016) present one possible solution of intervention against shadow banking, as taxation of shadow bank profits with the purpose of deterring new entries into the shadow banking sector, which can be considered a Pigouvian tax (tax on market activity that generates negative externalities).

Another disruptive problem for classical banking is the appearance of cryptocurrencies and so-called financial technologies (FinTech) companies, which are new specialised start-up financial firms that take advantage of digitalisation and big data techniques aimed at unbundling the activities of banks to increase competitive pressure within an already highly concentrated industry. Some of their activities include savings and investment management over the internet, crowdfunding or direct equity funding of projects by investors gathered mostly over the internet; peer-to-peer ( P 2 P ) lending or online money management advice aggregating all of the bank and savings accounts of clients (Constâncio, 2016).

There are two major structural changes in the banking industry that had great impact on the banking industry, as noted by Altunbas, Manganelli and Marques-Ibanez (2011, p. 10-11),

[^3]these are deregulation and financial innovation. Liberalization of the banking sector has altered the incentives of taking on risk. Following globalization of the financial markets, deregulation aimed to achieve economic gains in areas of greater competition. Financial innovation made it possible to increase the use of direct funding via financial markets and securitization, causing banks to become more integrated with financial markets and to increase their share of non-interest income from brokerage and investment activities.

### 2.4 Banking typology

The role of a bank is to accept deposits with short maturities from a large number of individuals and grant loans with longer maturities to borrowers and this core activity exposes banks to credit, interest rate and liquidity risks, as described by Memmel \& Schertler (2012, p. 603). Traditionally, the banking market was relatively restricted and uncompetitive, putting less pressure on banks to generate high profits and high returns to its shareholders (Casu, 2006, p. 52). A bank with greater funding flexibility should be more immune to exogenous shocks of funding (core deposits), resulting in less disruption to its intermediation activity. It should also lead to more stable loan growth, creating benefits to borrowers by both higher and more stable lending, and by providing a more stable economic environment, reducing the likelihood of distress for both the bank and its borrowers, thus resulting in greater financial and economic stability (Brewer et al., 2014, p. 232).

The majority of banks today perform a considerable amount of off-balance sheet activities. These activities have no asset-backing and are referred to as contingent claims. The most common OBS items are derivatives transactions, underwriting businesses and others, such as commitments and guarantees (Casu et al., 2006, p. 229). The main reason for banks to engage in OBS activities is to restrain asset growth and increase fee income, which increases return-on-equity (ROA), while at the same time meeting the regulative requirements of capital position.

Köhler (2015, p. 196) notes that by analysing business models one can describe how banks generate profits, what customers they serve and which distribution channels they use, which should provide supervisors with a deeper understanding of the sustainability of bank profits and stability. A few authors, like Casu et al. (2006), Matthews \& Thompson (2008). Bessis, (2010) and Hull (2015) classify banks slightly differently according to their business activities. Generally speaking one could classify the banking industry in following banking types: universal banking, wholesale banking and retail banking. These business models can be considered as means through which banks want to fulfil their objectives (Ayadi \& De Groen, 2014, p. 5) and further say that there should be more stringent rules for bank business models that tend to accelerate systemic risks and less regulation for those that are resilient to extreme shocks and contribute more to the real economy.

The main characteristics of universal banking, as noted by Matthews and Thompson (2008,
p. 58) are that they provide a full range of services to various customers, ranging from deposit taking and making loans, to insurance, underwriting and investment in shares. The problem with universal banks is that because of their size these banks increase the potential of system wide shock and may thus become too-big-to-fail.

Retail banking or commercial banking as various authors describe (Casu et al., 2006; Matthews \& Thompson, 2008; Saunders \& Cornett, 2008; Bessis, 2010), comprise the largest group of depository institutions. They differ in structure of assets and liabilities in comparison to savings banks and credit unions, as their liabilities include several non-deposit sources of funds. They also provide consumers with personal banking services, that is basically retail banking oriented towards wealthy individuals and tailored to their needs (Casu et al., 2006, p 58). These types of banks have underlying liquidity and asset risks that are mitigated by attracting a large number of customers. The risk of bank runs are small as long as the bank enjoys confidence and has sufficient sources to repay emergent obligations. The commercial banking market is highly saturated and competitive, rendering a smaller manoeuvring space for banks with regard to the pricing of loans and deposits, causing banks to find ways of reducing operating costs. Köhler (2015, p. 196) notes that retail oriented banks were less effected by the financial crisis of 2007-2008 than were investment banks. The reason for this is the fact that the activities of retail banks are mainly funded by customer deposits, which tend to be more stable in times of financial turmoil.

One thing to note is that small depositors are protected in case of bank defaults. Governments hold voucher programs and in case of a default depositors can access funds, but only to a specified limit. The downside of this is a higher possibility of moral hazard, enabling banks to partake in more risky lending activities in order to attain higher returns. The European Commission's European Deposit Insurance Scheme (EDIS) is intended to protect depositors in the EU and can be seen as another step towards a complete banking union. EU legislation already covers deposits up to $€ 100,000$ through a national deposit guarantee scheme (EC, 2016).

Wholesale banking or corporate banking is the opposite of retail banking, as it deals with a small number if customers but larger accounts or transaction size. As Matthews and Thompson (2008, p. 56), Casu et al. (2006, p. 59) describe, the services provided to its customers include payment services, debt financing, equity financing and other special financing. The structure of wholesale bank balance sheets differ from those of commercial banks, including substantially larger off-balance sheet assets or larger exposure to foreign exchange, and smaller numbers or size of deposits. Wholesale banks manage liquidity by borrowing on the interbank market. Investment banking also includes large transactions, tailored to the needs of large customers, usually corporations or other financial institutions (Casu et al., 2006; Hull, 2015; Bessis, 2010), performing activities like originating the securities, underwriting them and placing them with investors and financing in the form of debt, equity or other instruments, or advising on mergers and acquisitions or restructuring.

Investment banks do not hold deposits, the main source of their funding is short-term wholesale funding.

Ayadi and De Groen (2015) have performed a cluster analysis to define and identify bank business models among European Economic Area and European Free Trade Association ${ }^{6}$ (EFTA) countries with a sample size a little greater than 2,500 banks, spanning 2005 to 2014. Banks included in the study together accounted for more than $€ 40$ trillion at the end of 2014, which represents more than $95 \%$ of the banking assets in the EEA. They have segmented the European banking model in following manner:

- Model $1=$ focused retail is the most traditional activity, deposit-loan intermediation. Deposits account for $69.5 \%$ of total funding (including equity), customer loans amount to $78.8 \%$ of total assets. Other exposures are low, with trading assets representing $11.8 \%$ and bank loans representing $7 \%$. Banks of this model represented roughly a quarter of the sample.
- Model 2 = diversified retail (type 1) depended relatively highly on customer deposits and limitedly relied on bank deposits and debt liabilities. Model 2 has a higher share of trading assets and bank loans with $30.9 \%$ and $10.3 \%$, respectively. Customer loans represented $55.6 \%$ of total assets. Model 2 represents about $39 \%$ of the observations in the sample and, on average, less than $14 \%$ of total assets.
- Model 3 = diversified retail (type 2) has a more divers assets and liabilities profile than Model 1 with trading assets representing $22.6 \%$ of total assets. When comparing it with the other two retail oriented models, the difference is in funding, where Model 3 relies on debt liabilities in $43.3 \%$ of cases.
- Model $4=$ wholesale incorporates banks that rely heavily on interbank lending and funding. Interbank lending represented $52.2 \%$ of total assets and trading assets representing $17.1 \%$, while customer loans account for only $20.7 \%$ of the total balance sheet. These banks are also less leveraged than other banks. This group is the smallest both by number of banks and in terms of total bank assets.
- Model 5 = investment banks have substantial trading activities, trading assets and derivatives exposures represent $60.2 \%$ and $5.2 \%$ of total assets and are funded by debt liabilities. Investment banks are the largest banks, both in terms of total and average assets. The average size of a bank in this cluster, over the entire sample period, was approximately $€ 123$ billion. This was almost double the amount of a diversified retail bank (type 2), about ten times the size of an average wholesale or diversified retail bank (type 1), and about twenty times the size of a focused retail bank.

As mentioned in the ECB Financial stability review (2016), the main drivers of banks' profitability in pre-crisis time were high leverage and/or reliance on cheap wholesale funding or in some cases excessive risk taking, which has been changed by regulation and

[^4]reformation of banks due to weakened economic conditions. Due to pressure from investors or by the banks' own initiatives and changes in risk preferences, banks were expected to make changes to their business models. Three main factors that drove the change were: regulative reforms that affected business models by requiring banks to hold more highquality capital, liquid assets and more stable funding sources. A lot of the EU area banks scaled down their activities and strengthened core activities. There were big shifts from investment or wholesale models to more stable retail models with banks reducing leverage and dependence on wholesale funding. Due to the current low interest rate banks will also have to focus on the retail segment and fee generating activities as main sources of income. Mergaerts and Vander Vennet (2016, p. 67) find that a business model relying on income diversification enables banks to generate more non-interest income from the average asset in order to compensate for low interest margin income and higher expenses. Roengpitya et al. (2014, p. 64) mention that nearly two fifths of the banks that entered the crisis as wholesale funded or trading banks switched to a retail funded business model.

Research shows that retail focused business models perform better in the long-term, exhibiting higher profitability measured in terms of ROA and NIM, and lower vulnerability to distress. Diversification is also associated with better performance (profitability) but not decreased stability, say Mergaerts and Vander Vennet (2016, p. 74). Memmel and Schertler (2012, p. 604) find that savings banks may have lower incentives to generate income from term and liquidity transformation and therefore may have a higher asset-liability dependency than commercial and cooperative banks. On the other hand the behaviour of commercial banks, their incentives and competitive environment differ from those of other types of financial institutions (Fiordelisi, Marques-Ibanez, \& Molyneux, 2011, p. 1319).

Table 1. Business model statistics

|  | Focused retail | Diversified retail (type 1) | Diversified retail (type 2) | Wholesale | Investment |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bank loans (\% assets) | 7 | 10.30 | 6.60 | 52.20 | 11.40 |
| Customer loans (\% assets) | 78.50 | 55.60 | 68.90 | 20.70 | 23.50 |
| Trading assets (\% assets) | 11.80 | 30.90 | 22.60 | 17.10 | 60.20 |
| Bank liabilities (\% assets) | 12.30 | 14 | 10.60 | 22.40 | 14.90 |
| Customer deposits (\% assets) | 69.5 | 70.70 | 36.70 | 51.80 | 49.30 |
| Debt liabilities (\% assets) | 10.10 | 7.30 | 43.30 | 10.40 | 19.90 |
| Derivative exposures (\% assets) | 0.30 | 0.40 | 1.70 | 0.80 | 5.20 |
| Tangible common equity (\% tangible assets) | 7.60 | 7.50 | 7.40 | 14.10 | 9.80 |

Source: R. Ayadi, \& W. P. De Groen, Banking Business Models Monitor 2015: Europe, 2015, Table 3.1.

Another important way to diversify banks is based on their ownership and objectives. Ayadi and De Groen (2015) distinguish between stakeholder value banks and shareholder value banks, the first one with multiple objectives, the second with the objective of maximizing
profits. In their findings Barry, Lepetit and Tarazi (2011, p. 1330) note that European publicly held banks are on average more profitable than privately owned banks. One explanation for this is that listed banks can raise capital at lower transactional costs, enabling them to grow faster and benefit from economies of scale in order to generate higher profits.

Research on German banks by Norden and Weber (2010) was performed on various issues of loans and deposits. An important finding is that a decrease in deposits did not affect lending (bottleneck hypothesis), but the higher the share of customer deposits to interbank liabilities a bank had, the more profitable it was. Buch and Goldberg (2015, p. 402) also note that banks with a more stable and stronger deposit base have not contracted their lending activities significantly despite liquidity crisis. The level of banking capital per se is not as important as insurance against liquidity shocks.

## 3 BASEL III AND LIQUIDITY REGULATION

The Bank for International Settlements (BIS) was established in 1930 and is among the world's oldest international financial organizations, with 60 member central banks representing countries around the world, together comprising around $95 \%$ of the world's gross domestic product (GDP). Its mission is to serve central banks in their pursuit of financial and monetary stability and to foster international cooperation through meetings, programmes and perhaps more importantly, the Basel Process, but also hosting international committees and standard-setting bodies, as well as facilitating their interaction in an efficient and cost effective manner (BIS, 2016).

The Basel Committee on Banking Supervision (BCBS) provides a forum for cooperation on banking supervision, with the objective of enhancing the understanding of key supervisory issues and improving the quality of banking supervision worldwide. The BCBS is the creator of banking guidelines and a framework called Basel or the Basel Accord. The latest such framework is Basel III (A global regulatory framework for more resilient banks and banking systems) which introduced further requirements for more resilient banks after the 2007-2008 financial crisis and is largely based on Basel II or the International Convergence of Capital Measurement and Capital Standards document. Basel Committee reforms strive to strengthen global capital and liquidity rules with the goal of promoting a more resilient banking sector with the objective of improving the banking sector's ability to absorb shocks from financial and economic stress and to reduce the risk of spillover from the financial sector to the real economy (BCBS, 2011a).

Because of the specialness of the banking industry, which provides everybody from consumers to large corporations and governments with resources, a strong and resilient system is the foundation of economic growth. Basel III addresses two issues of banking, capital requirements and liquidity requirements. One can divide capital requirements into three pillars: Pillar 1 addresses issues of capital, risk coverage and containing leverage, Pillar

2 addresses risk management and supervision, and Pillar 3 addresses market discipline.

Since the BCBS guidelines are not per se enforceable on banks, the European Commission accepted the Capital requirements regulation and directive (CRR/CRD IV), which is also a first step towards a single supervisory mechanism (SSM). It also gave the European Banking Authority (EBA) a legally binding mediation role, which is a key element of the promotion of coordination, supervisory consistency and convergence of supervisory practices (CRR/CRD IV) (Altunbas, Carbo, Gardener, \& Molyneux 2007, p. 51).

### 3.1 Capital requirements

Basel III: A global regulatory framework for more resilient banks and banking systems builds on the lessons of the 2007 financial crisis. One of the reasons was that banks in many countries had excessive on- and off-balance sheet leverage, which in combination with insufficient liquidity buffers meant that banks could not absorb large exposures. Deleveraging amplified the banking crisis, issues were transmitted to the rest of financial systems and real economy, creating problems with liquidity and credit availability.

Capital standards is divided twofold, on Tier 1 (further divided on common equity Tier 1 and additional Tier 1) and Tier 2 Capital. Standards require that banks hold no less than 4.5\% of Common equity Tier 1 capital with total Tier 1 capital being at least $6 \%$ of risk-weighted assets at all times. Minimum total capital (Tier $1 \& 2$ ) should be at $8 \%$. Tier 1 capital contains assets like common shares, retained earnings and reserves. Requirements on the amount of capital are bound to change during up coming years. From 2015 banks are required to hold 6\% of total Tier 1 capital. Another addition that Basel III made is a capital conservation buffer designed to ensure that banks build up capital buffers outside periods of stress which can be used when losses are incurred. Given the established Tier 1 capital, the capital conservation buffer is determined accordingly. The basic idea is that for banks with Tier 1 capital greater than $7 \%$ there is no need to hold a conservation buffer. If the Tier 1 ratio is between $4.5 \%$ an $5.125 \%$ then banks are required to hold a buffer amounting of $100 \%$ of its earnings. A countercyclical buffer will be determined with the help of local authorities and will vary from zero to $2.5 \%$ of risk weighted assets.

The Basel III standard allows banks to calculate counterparty risk using an internal models method, specifically credit valuation adjustment (CVA) risk capital charge. CVA is an adjustment to the fair value (or price) of derivative instruments to account for counterparty credit risk (CCR). The purpose of the Basel III CVA capital charge is to capitalise the risk of future changes in CVA (BCBS 2015a). Research by Deloitte (2013, p. 8) finds that $70 \%$ of the banks are calculating regulatory capital associated with their CCR exposures for at least a part of their portfolio using the current exposure method but there are efforts to transition to methods of internal modeling.

Another important issue that the new regulation addresses is the leverage ratio requirement, which has the objective of constraining the build-up of leverage in the banking sector, and helping to avoid destabilising deleveraging processes, which can damage the broader financial system and the economy, as well as to reinforce risk based requirements.

### 3.2 Liquidity requirements

The Basel Committee presented a supplement to Basel III, guidelines for mitigating liquidity risk. One of these is the Principles for sound liquidity risk management and supervision, which lays the fundamental principles for management and supervision of liquidity risk. A bank is responsible for the sound management of liquidity risk, and it should establish a robust liquidity risk management framework to ensure that it maintains sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources (BCBS, 2008).

Liquidity coverage ratio (LCR) is a direct response to the 2007 liquidity phase of crisis. The objective of LCR is to promote short-term resilience of the liquidity profile of banks. It does so by ensuring that banks have an adequate stock of unencumbered high-quality liquid assets (HQLA) at their disposal, which can be easily and immediately converted in the private market into cash to meet liquidity needs for thirty calendar days (BCBS, 2013). It also gives the central bank additional time to take appropriate measures if further action is necessary. According to the standard, the ratio value should not be lower than $100 \%$, which means that HQLA should equal total net cash outflows. The role of HQLA is to protect banks from potential stress - if financial stress occurs, the level of HQLA would fall below $100 \%$.

According to the BCBS LCR guidelines liquidity troubles are caused by a run-off of the portion of retail deposits, partial loss of unsecured wholesale funding, partial loss of secured short-term financing with collaterals, outflows caused by downgrading of a bank's credit ratings (up to three notches), increases in market volatilities that impact the market of collateral or potential future exposure of derivatives, unscheduled draws by clients, potential needs for debt buy backs and lastly, the mitigation of reputational risk.

The LCR is comprised of two factors: the value of stock HQLA in stressed conditions and total net cash outflows projected for 30 days.

$$
\begin{equation*}
L C R=\frac{\text { HQLA in stressed conditions }}{\text { Total net cash outflows next } 30 \text { days }} \geq 100 \% \tag{1}
\end{equation*}
$$

Stressed conditions in relation to HQLA mean that if stress conditions occur, assets will be sold at fire sale prices meaning they are being sold at greatly discounted rates, as is usually the case for low quality assets. If a bank holds a lot of low quality assets this further puts pressure on its liquidity position, as it must sell these assets at further discounted rates.

The LCR guidelines (BCBS, 2013) define the characteristics of HQLA and distinguish between fundamental characteristics and market characteristics. The fundamental characteristics are that low risk high quality assets have lower risk and higher liquidity, as well as short duration and low legal and inflation risks, ease and certainty of valuation which is attributed to more standardized homogenous and simple assets to promote liquidity, low correlation with risky assets in order to improve liquidity, are listed on a developed and recognized exchange, which increases asset transparency. There are also marketrelated characteristics such as an active and sizable market and diversity of market participants to reduce concentration and increase reliability of the liquidity in the market, low volatility in order minimize probability of forced sales to meet requirements and flight to quality.

As with any other investment there is also need for a diversified HQLA portfolio. Standards segment HQLA into two categories of asset, Level 1 and Level 2, and also set a limit on the amounts that they can represent. Level 1 assets are not subjected to haircuts ${ }^{7}$ although some national supervisors wish to include haircut policy for Level 1 assets due to underlying duration, credit and liquidity risk. Level 1 assets are: coins and banknotes, central bank reserves, marketable securities with guaranteed claims with a proven reliable source of liquidity in the markets and are not an obligation of the financial institution, sovereign or central bank debt securities in domestic currencies with non-zero risk weight with the accompanying country's liquidity risk and sovereign or central bank debt securities in foreign currencies with non-zero risk weight.

Level 2 assets are divided on Level 2A where a 15\% haircut is required and Level 2B assets for which there are different haircut rates. Level $\mathbf{2 A}$ assets are: marketable securities with guarantees by sovereigns, central banks or development banks and corporate debt securities (including commercial paper) and covered bonds, with a credit rating of at least AA- and accompanying default probability. For Level 2B assets a larger haircut is required, these assets are: residential mortgage backed securities (RMBS), for which a $25 \%$ haircut is needed and have a minimum credit rating of AA, corporate debt securities (including commercial paper) with credit ratings between A+ and BBB- with a $50 \%$ haircut, and common equity shares for which a $50 \%$ haircut also applies.

The denominator of LCR is the total net cash outflow, defined as total expected cash outflow subtracted from the minimum total expected inflows for next 30 days, representing $75 \%$ of total expected cash outflows. Problematic cash outflows are the retail deposit run-offs, stable deposits with run-off rates of $3 \%$ or higher, less stable deposits with $10 \%$ or higher run-off rates, and lastly, secured and unsecured wholesale funding run-offs. Cash outflow is also

[^5]created by the derivatives usage of a bank. As far as cash inflow is concerned, the $75 \%$ cap on inflows is present in order to prevent banks from relying solely on anticipated inflows to cover their liquidity needs. This measure also forces banks to a hold minimum of $25 \%$ HQLA. The most important cash inflows are those created by retail and small businesses, wholesale inflows and derivatives cash inflows.

Another requirement is the Net stable funding ratio (NSFR), requiring banks to maintain a stable funding profile in relation to the composition of their assets and off balance sheet activities. A sustainable funding structure is intended to reduce the likelihood of disruptions to a bank's regular sources of funding. NFSR limits the overreliance on short-term wholesale funding and encourages better assessment of funding risk for on- and off-balance sheet items, as well as promoting funding stability (BSBS, 2014).

While LCR focuses on a time span up to 30 calendar days, NSFR focuses on reducing funding risk over a longer time horizon by creating requirements for stable sources of funding in order to manage future funding stress. The NSFR factor is defined as:

$$
\begin{equation*}
\text { NSFR }=\frac{\text { Available amount of stable funding }}{\text { Required amount of stable funding }} \geq 100 \% \tag{2}
\end{equation*}
$$

Available stable funding represents the portion of capital and liabilities expected to be reliable over time covered by NSFR, which is up to one year. Required stable funding represents the liquidity characteristics and residual maturities or different assets held by banks, including off-balance sheet exposures. The amounts of available and required stable funding are presumed to have the characteristics of stability of liabilities and liquidity of assets. The stability of liabilities can be described by two dimensions: funding tenor which means that long-term liabilities are assumed to be more stable than short-term ones; funding type and counterparty, which assumes that deposits by retail customers and business customers with tenure up to one year are more stable than wholesale funding with same maturity.

ASF is measured on the basis of the broad characteristics of the relative stability of an institution's funding sources, including the contractual maturity of its liabilities and the differences in the propensity of different types of funding providers to withdraw their funding. The amount of ASF is calculated by assigning the carrying value of an institution's capital and liabilities to one of five categories of funding. The amount of RSF is measured on the basis of the broad characteristics of the liquidity risk profile of an institution's assets and OBS exposures. (BCBS, 2014).

King (2013, p. 41) finds that the most cost-effective strategies to increase the NSFR appear to be to increase holdings of higher rated liquid assets and to extend the maturity of wholesale funding. He further elaborates that de-risking the bank with LCR and NSFR would bring
benefits such as increasing capital ratios and lowering the cost of capital, but at the expense of profitability during normal times, when interest margin is bound to be lower. To eliminate systemic liquidity risk greater transparency of liquidity management practices is needed and that is where supervision and regulation act as the fundamental tools against systemic liquidity crisis (Nikolaou, 2009, p. 6).

## 4 BANKING RISKS AND ASSET-LIABILITY MANAGEMENT

### 4.1 Banking risks

Broadly speaking, Bessis (2010, p. 26) defines risk as an adverse effect on wealth attributed to the randomness of outcomes, and hedging means mitigation of the chances of financial losses. Nowadays financial institutions are subjected to a variety of risks.

It is important to note the bank's systemic risk contribution. As Laeven, Ratnovski and Tong (2014) note, systemic risk contributions differ from individual bank risk because they are also driven by correlations in returns between the bank and the financial system, and also by bank size. The systemic risk of a bank arises from procyclicality and from interconnectedness of financial institutions (BCBS, 2011a). Goddard et al. (2007, p. 1917) find that procyclical movements in bank lending, capital and loan-loss provisioning may tend to amplify real economic fluctuations and that a bank's systemic impact depends on its size, capitalization funding structure and activities (Laeven et al., 2014). When banks perceive themselves as being to be too big to fail, they have a tendency to assume excessive risks in order to make profit in the short term (Bhagat, Bolton, \& Lu 2015, p. 520).

Credit risk is one of the most important risks in banking business. Saunders and Cornett (2008, p. 173) define it as the possibility that promised cash flow on financial claims will not be paid out fully. Bonds or loans with longer maturities bear higher credit risk that those with shorter maturities. Bessis (2010, p. 28) splits it into five credit risk components, which are default risk, migration risk, exposure risk, loss given default (LGD) and counterparty risk.

Market risk refers to the possibility of loss over a given period of time due to the uncertainties of market risk factors such as interest rate, currencies, equities and commodities (Matthews \& Thompson, 2008, p. 211) and can be general (systematic), caused by changes in asset prices that are caused by macroeconomic policies, or specific (unsystemmatic), caused by change in the price of an instrument due to specific events related to the issuer of a marketable instrument, e.g. change of jurisdiction (Casu et al. 2006, p. 269).

Foreign exchange risk is present with international activities and earnings in different currencies. Due to the changes in value of one currency there can be gains or losses related
to domestic currency. As Casu et al. (2006, p. 267) say, foreign exchange risk can be in the form of cash, funds available on credit cards, bank deposits and other short-term claims.

Country (sovereign) risk is seen as a different type of credit risk that is faced by a financial institution that purchases assets such as the bonds and loans of foreign corporations, say Saunders and Cornett (2008, p. 179), or put simply, it is the default risk of sovereign issuers, such as central banks or government sponsored banks. Sovereign defaults actually materialize as debt restructuring, with the uncertainty being the duration of frozen debt payment (Bessis, 2010, p. 32).

Off-balance sheet risk is incurred when banks deal with non traditional banking activities such as derivative instruments (futures, options), guarantees and letters of credit, as Casu et al. write (2006, p. 273). Use of derivatives has been more prominent in large banks than smaller depository institutions or other financial companies. Off-balance sheet items affect the future structure of an institution's balance sheet, since they create contingent assets and liabilities that rise to their potential placement on the balance sheet (Saunders \& Cornett, 2008, p. 176).

Operational risk, according to BCBS (2011b, p. 3), is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events, including legal risk, but excluding strategic and reputational risk. This type of risk is inherent in all banking products, activities, processes and systems.

Insolvency risk is the risk that a financial institution will be unable to absorb losses generated by other risks with the available level capital. Solvency relates to the net worth of a bank and its capital (capital adequacy). When banks use economic measures of potential losses the capital buffer sets the default probability of the bank, or the probability that potential losses exceed the capital base (Bessis, 2010, p. 35).

### 4.2 Asset-liability management

Asset-liability management (ALM) is a generic term that in banking describes the high-level management of a bank's assets and liabilities. It focuses on two main risks in the financial market, interest rate risk and liquidity risk - the mission of ALM is to manage these risks. Interest rate risk can be divided into two strands. First, there is risk of asset value changes caused by changes in market interest rates, which impact the cash flows of assets and liabilities as well as their present value. Second, risk is associated with optionality, arising from products such as redeemable loans. The other main type of risk is liquidity risk, which refers to both the liquidity of markets and the ease with which assets can be translated to cash (Choudhry, 2011, p. 141-144).

For banks and other financial institutions performance is an important issue that must be
addressed and it seems appropriate to look at what performance means to these institutions. Van Deventer et al. (2013, p. 9) say that for a commercial bank, performance is measured in terms of funds transfer pricing (FTP) which is the assignment of financial accounting profits to each asset and liability on the balance sheet of the bank and their compilation of financial accounting profits for each business unit. For an investment bank, performance measurement is just profit or loss, with little or no adjustment for various risks. FTP is an activity in domain of bank treasury functions. Kawano (2005, p. 36) mentions three types or methods of FTP, which are: single pool, multiple pool and matched maturity marginal funds transfer pricing (MMMFTP). Thomas (2006, p. 27) says basic idea behind FTP is that products that use or generate funds should be charged or credited for those funds at risk of free rate for the duration of the funding cycle. The treasury manages interest rate mismatches with ALCO or Asset-liability committee oversight, which relieves separate business units from managing interest rate risk, enabling them to focus on core business activities (Choudhry, 2011, p. 175).

As Hull (2015, p. 175) says, a key risk management activity is the management of net interest income (NII) and the role of the asset-liability management function within the bank is to ensure that the net interest margin (NIM) remains roughly constant through time. Interest rate hikes, affect banks in two ways: rise in market interest rates increases banks’ funding cost because the cost of variable rate deposits and other variable rate financing increases, and on the contrary, banks will be vulnerable to falling rates if they hold an excess of fixed rate liabilities (Casu, Girardone, \& Molyneux, 2006, p. 262).

Saunders and Cornett (2008, p. 170) note that with asset transformation as a key function, a bank or other financial institution exposes itself to either refinancing risk or reinvestment risk. Refinancing risk means that the cost of rolling over or re-borrowing funds will rise above the returns being earned on assets investments, or simply that the financial institution holds more long-term assets than liabilities. The second type is reinvestment risk, which means the opposite and is the risk that returns on funds to be reinvested will fall below the cost of funds, or that the financial institution holds more short-term assets than liabilities.

The existence of liquidity and interest rate gaps or mismatches, and management of them is the responsibility of ALM (Bessis, 2002, p. 132). Saunders and Cornett (2008, p. 195) devise three models of measuring the asset-liability gap exposure of a financial institution: repricing (funding model), the maturity model and the duration model. The duration analysis of a banks' liabilities is still an open question due to the fact that all deposits do not have a time to maturity known ex ante, because it is only possible to know this ex post (Giandomenico, 2011, p. 31).

Brewer et al. (2014, p. 230) find that in a state of high interest rate volatility a bank is less likely to access funds through sources that are relatively more rate sensitive (fed funds or central bank borrowing or Eurodollar borrowing), but a bank's loan growth will be
predominantly funded by sources that are less rate sensitive (core deposits) causing loan growth to be more dependent on these less rate sensitive sources.

### 4.3 Interest rate risk management

Interest rate can be defined as a price that relates to present claims on resources relative to future claims on resources - or a price that a borrower of fund pays in order to be able to consume resources now rather than at some time in the future (Casu et al, 2006, p 261).

The BCBS standard of interest rate risk in banking book (hereinafter IRRBB) (BCBS, 2016a, p. 4) describes the rise of interest rate risk originating from the banking activities encountered by all banks, that is intermediation activity which creates maturity mismatch exposure (long-term assets being funded by short-term liabilities), rate mismatch (fixed rate loans being financed by variable rate deposits) and optionality embedded in banking products (maturity deposits, term deposits, fixed rate loans).

IRRBB defines three sub-types of interest rate risk, which are (BCBS, 2016a, p. 3):

- Gap risk, which arises from the term structure of banking book instruments and describes the risk stemming from the timing of underlying instrument rate change. The extent of gap risk depends on whether changes to the term structure of interest rates occur consistently across the yield curve (parallel risk) or differentially by period (non-parallel risk).
- Basis risk, which describes the impact of relative changes in interest rates for financial instruments that have similar tenors but are priced using different interest rate indices.
- Option risk, which arises from option derivative positions or from optional elements embedded in a bank's assets, liabilities and/or off-balance sheet items, where the bank or its customer can alter the level and timing of their cash flows. Option risk can be further characterised, as automatic option risk and behavioural option risk.

Choudhry (2012, p. 393) in addition to those above also adds the following:

- Yield-curve risk means that there is a risk that non- parallel or pivotal shifts in the yield curve cause a reduction in net interest income.
- Run-off risk, which is specific for deposit taking institutions and clearing banks, associated with NIBLs ${ }^{8}$ of such a bank. With rise of interest rates this opportunity cost also rises and depositors will rush to withdraw these funds, which are available at immediate notice, resulting in an outflow of funds from the bank. This represents a significant risk for the bank as sufficient funds must be held at short notice.

[^6]As noted in the BCBS standard on Interest rate risk in banking book (IRRBB) (BCBS, 2016a, p. 12), banks should not rely on a single measure of risk but should instead use a variety of methodologies to quantify their IRRBB exposures under both, the economic value and earnings-based measures - ranging from simple calculations based on static simulations using current holdings - to more sophisticated dynamic modelling techniques that reflect potential future business activities.

Many authors like Bessis (2002, p. 166; Casu et al., 2006, p. 262; Saunders \& Cornett, 2008 p. 195) distinguish between rate sensitive-assets (RSA) or variable-rate assets and ratesensitive liabilities (RSL) or variable-rate liabilities in relation to interest rate gaps. There are also fixed rate gaps. Rate sensitive assets or liabilities are those assets or liabilities that are re-priced at or near market rates within a maturity bucket. IRRBB (BCBS, 2016a, p. 23) defines 19 time buckets into which a bank must project rate sensitive assets, liabilities and off-balance sheet items using an activity called cash-flow bucketing.

Gap methodology crates assumptions and shortcomings if not weaknesses. As Saunders and Cornett (2008, p. 203; Choudhry, 2012, p. 396; Bessis, 2002, p. 174) tell, one assumption is that IRs manifest themselves as parallel shifts in yield curve while in reality this is not true due to different short-term and long-term rates. The gap method does not recognize the potential defaults of borrowers or possible prepayments of loans if borrowers wish to refinance their loans. Specifically it fails to deal with the problem of rate-insensitive asset and liability runoffs ${ }^{9}$ and prepayments. Another assumption is that the re-pricing of assets and liabilities takes place in the maturity bucket mid-point, and does not incorporate future growth or changes of the asset-liability mix, and does not consider the time value principle of money. Lastly it also ignores cash flows from off-balance sheet activities that create a convexity risk.

Choudhry (2012, p. 361-362) notes that rate insensitive assets and liabilities that are a large part of retail and commercial banking operations, revolve around assets that do not have an explicit maturity date. These include current account overdrafts and credit card balances. They also include drawn and undrawn lines of credit and can be difficult to predict. Under non-dated liabilities fall NIBLs that contain chequing accounts and instant-access deposits, the latter attracts low interest rates.

Controlling duration gaps is similar to controlling interest rate gaps, and instruments such as derivatives and futures are aiding in altering the gap (Bessis, 2002, p. 280). Brewer et al. (2014, p. 231) say that by using interest rate derivatives, a bank can lessen the adverse effects of interest rate uncertainty. Non-users of interest rate derivatives are more likely to rely on

[^7]sources of funds that are less interest rate sensitive, such as core deposits, to fund their loan growth. In their work, Brewer et al. (2014, p. 232) find that use of interest rate derivatives seems to reduce banking system exposure to interest rate uncertainty, causing the sensitivity of loan growth to core deposit growth to be lower. Usually IR derivatives include caps or floors, swaps or forward rate agreements. Wilmott (2006, p. 540) mentions some other types of IR options in use that include range notes, forward rate agreements, range notes, swaptions, captions and flortions, spread options and contracts with embedded decisions along with a few others.

The interest rate gap is similar to the liquidity gap, as described by Bessis (2002, p. 168), except that it isolates fixed rate from variable rate assets and liabilities. The liquidity gap combines all of them, no matter the nature of rates. Another difference is that any interest rate gap requires definition of the maturity bucket due to fixed, versus variable rate distinction. Whereas liquidity gaps consider only amortization dates, interest rate gaps require all amortizations and all reset dates.

### 4.4 Liquidity risk management

Liquidity in general means that a company can access cash when it needs it in order to meet its obligations. Liquidity risk means, that a bank will not be able to access that cash or have it in sufficient amounts in order to meet funding requirements. Saunders and Cornett (2008, p. 181) say that a state of liquidity risk arises when financial institutions' liability holders demand immediate cash for the financial claims they hold, or when holders of off-balance sheet loan commitments (credit lines) suddenly exercise their rights to borrow. Banks can normally predict smaller claims of depositors and hold sufficient cash to meet daily needs. Solvency simply means that a company has more assets than liabilities, therefore value of equity is positive. As Matz and Neu (2007, p. 3) point out, unlike interest rate risk, liquidity risk cannot be easily hedged and that is why rigorous monitoring and control is needed.

Liquidity risk is the result of size and maturity mismatches between assets and liabilities. As Bessis (2002, p. 136) puts it, liquidity deficits make banks vulnerable to market liquidity risk and that is why liquid assets represent a necessity for banks to provide an alternative source of funds for facing short-term obligations. Due to the core role of banks (maturity transformation) they will always have far more obligations due on demand or within a very short time frame, than they have assets due on demand or maturing within a very short time frame (Matz \& Neu, 2007, p. 14). Liquidity risk can be separated into liquidity trading risk (market liquidity) and liquidity funding risk. Hull (2015, p. 499) defines liquidity in trading as the liquid position of an asset that can be unwound on short notice.

For options or other derivatives it is also important that these instruments have a liquid market so that traders have no difficulties maintain delta neutrality. If underlying assets are not of high quality or bear risks, then all of that will be reflected in the bid-offer spread for
such instruments. Liquidating large positions can create a situation called predatory trading, where other market participants guess that the position of a certain company will have to be unwound so they attempt to profit by doing similar trades (e.g. if there is an expectation that the company will have to sell a large position of a certain stock, other market participants short the stock in anticipation of the stock's decline). Another phenomenon regarding liquidity trading risk is the so-called liquidity black hole, which is a situation where there is no liquidity, which happens if everybody wants to sell a certain asset but no one wants to buy, or vice versa, as described by Hull (2015, p. 515).

Liquidity funding risk is the ability of a financial institution to meet its cash needs when obligations arise, or better said, the risk of not fulfilling their obligations. In order to manage liquidity risk it is necessary to predict cash needs (Hull, 2015, p. 507). The problem is that not all cash needs are predictable. Predictable claims are coupons on bank issued bonds, but as far as consumer deposits go, these are not entirely predictable. Drehmann and Nikolaou (2012, p. 2176) note that theoretically, factors like asymmetric information, uncertainty about future liquidity needs and incomplete markets can all lead to a liquidity funding risk. For the bank this means, that it must rely on the interbank market and may have to pay more than the market rate to obtain liquidity.

Market liquidity risk as Nikolaou (2009, p. 18) puts it, is the inability of trading at a fair price with immediacy, which is a systematic and non-diversifiable component of liquidity risk. Market liquidity risk also has the potential to lead to financial crisis, damaging the stability of markets and affecting the economy. Drehmann and Nikolaou (2013, p 2274) find a strong negative correlation between funding liquidity risk and a measure for market liquidity, meaning, higher funding liquidity risk implies lower market liquidity.

Nikolaou (2009, p. 11) also adds central bank liquidity which is the ability of the central bank to supply the liquidity needed to the financial system. With liquidity received from a central bank (lender of last resort), banks can continue their activities allowing the economy to continue to work efficiently, improving the economy and with banks' assets recovering giving rise to new short-term funding (Occhino, 2016). The relationship between funding and market liquidity is also evident when one examines the relationship between the dispersion of Treasury yields relative to a fitted Treasury yield curve and Treasury bid-ask spreads (Federal Reserve Bank of New York, 2016).

Similar to the interest rate risk, in liquidity risk there is also a gap concept. Liquidity gaps are differences between the outstanding balances of assets and liabilities, or between their changes over time (Bessis, 2002, p. 137). Matz and Neu (2007, p. 18) note that it is possible to project liquidity over time based on net expiring assets and liabilities, but these projections change daily. A positive gap means that there are more assets than liabilities, a positive gap is equal to a deficit or an outflow of resources. To the contrary, a negative gap represents an excess that needs to be reinvested. Better said, there are three basic liquidity positions - cash
matching, underfunding and overfunding (Bessis, 2010, p. 273).

Bessis (2002, p. 159) and Choudhry (2012, p. 359) differ between static gaps and dynamic gaps. Since a liquidity gap is merely a snapshot in time, the gaps on existing assets and liabilities are static gaps, they are time profiles of future gaps not including new business. If a bank adds new assets and liabilities, the gap profile tends to change completely, described as a dynamic gap profile. Another view of gaps is that there are marginal gaps or incremental gaps, which are differences between change in assets and liabilities during a specified period of time (Choudhry, 2012, p. 359).
As Matz and Neu (2007, p. 17) say, the crystallization of the market, credit or operational losses, reputation damages or market liquidity stress can be all classified as trigger events for a liquidity crisis. Due to the interconnectedness of banks, liquidity risk can become systemic, as when a bank faces a mass withdrawal of liquidity, it first tries to call in interbank claims before liquidating its own assets. If shortage banks hold more claims on surplus banks they can prevent liquidity shortage (Lee 2013, p. 1).

Saunders and Cornett (2008, p. 494) recognize the emergence of liability risk on both side of the balance sheet. Speaking generally for a depository institution, items on the liability side of the balance sheet have shorter maturities than items on the assets side. One set of problematic items are demand deposits, as they can be withdrawn at no prior notice. Most bank deposits act as core deposits, provide the majority of funding and are fairly stable. Cornett et al. (2011, p. 305) find that although depositors can withdraw demand deposits they rarely choose to do so. This enables banks to use these deposits to fund loans and commitments, thus in a way, demand deposits act as a substitute for liquid assets. Banks that are more liquid may be more efficient, since they can produce more output, part of which includes liquid and other assets (Altunbas et al., 2007, p. 56).

Choudhry and Landuyt (2010, p. 143) list the most important principles of banking and liquidity management that can also be understood as cornerstones:

- Fund illiquid assets with core customer deposits - as they are more stable than wholesale deposits and have a lower risk of withdrawal,
- Where core customer deposits are not available use of long-term wholesale funding sources,
- Do not overrelly wholesale funding - more funding sources should be long-term than short-term in order to minimize exposure to frequent short-term rollover risk to wholesale funds,
- Maintain liquidity buffers to handle stresses (firm specific and market stresses) - in periods of financial stress or illiquidity government bonds are the only assets that remain liquid, so the liquidity buffer should be comprised of sovereign debt rather than CDs of high rated banks or other commercial papers,
- Establish a liquidity contingency plan - bank funding should be sourced from multiple
origins to avoid concentration risk. In case of liquidity dry up, central bank lending has to be considered. The contingency plan has to be updated and tested regularly,
- Know which central bank facilities the bank can asess and test access to them - be aware how central bank borrowing functions and what the associated benefits are,
- Be aware of the bank's exposures on the liability side,
- Use more than one metric - calculate various metrics in order to obtain the most accurate liquidity picture,
- Internal transfer pricing framework must be set correctly and adequately - in order to prevent inappropriate business decision making.


### 4.4.1 Liquidity risk analysis

The quantitative liquidity risk assessments include three types, which the of analysis as Matz and Neu (2007, p. 18) presents as:

1. Balance sheet liquidity analysis, which is an analysis of different balance sheet items on the asset and liability sides of the balance sheet, analysis of items' liquidity and stability or volatility of funding. Stable assets should be funded by stable liabilities, and vice versa. There are also a few issues with this type of analysis. There is a missing time dimension for such analyses, impact of accounting standards, as accounting rules do not necessarily reflect the economic cash flows of a bank, impact of off-balance sheet items, which do not appear on the banking book, that there is impact of marketability of securities, and lastly stability of non-bank deposits.
2. Cash capital analysis, defined as the aggregate of long-term debt, core deposits and equity (and contingency funding capacities) minus firm-wide haircuts, contingent outflows and illiquid assets.
3. Maturity mismatch analysis is method that assigns items based on their cash flows to different maturity buckets. Net cumulative inflows of funds comprised of available cash, committed backup lines (overnight loans) and unencumbered securities. On the opposite side net cumulative outflows comprised of loans taken, retail deposits, deposits from other banks, government and CDs, own capital market funds and off-balance sheet commitments.

Cornett, McNutt, Strahan and Tehranian (2011, p. 301) identify four main liquidity risk drivers, arising from basic bank operations such as the composition of the asset portfolio (market liquidity of assets), core deposits as a fraction of total financial structure, equity capital as a fraction of financial structure and funding liquidity exposure stemming from loan commitments. As far as quantitative approaches to liquidity go, the process is assumption driven and focused on IT system infrastructure, management and control process, or whether diversified funding is used (Matz \& Neu, 2007, p. 33).

There are a lot of early warning indicators that point to potential liquidity risks, as noted in the BIS standards that include the following (BCBS, 2008): rapid asset growth, especially when funded with potentially volatile liabilities; growing concentrations in assets or liabilities; increases in currency mismatches; a decrease of weighted average maturity of liabilities; repeated incidents of positions approaching or breaching internal or regulatory limits; negative trends or heightened risk associated with a particular product line, such as rising delinquencies; significant deterioration in the bank's earnings, asset quality, and the overall financial condition; negative publicity; a credit rating downgrade; stock price declines or rising debt costs; widening debt or credit-default-swap spreads; rising wholesale or retail funding costs; counterparties that begin requesting or request additional collateral for credit exposures or that resist entering into new transactions; correspondent banks that
eliminate or decrease their credit lines; increasing retail deposit outflows; increasing redemptions of CDs before maturity; difficulty accessing longer-term funding and difficulty placing short-term liabilities.

One metric that helps to determine whether a liquidity crisis is approaching is the TED spread, as mentioned by Cornett et al. (2011, p. 299), which is difference between three month LIBOR and three month Treasury rate and serves as an indicator of perceived risk in the economy. An increase in this spread suggests that lenders believe that risk of interbank loan default is increasing. For the European market the spread between LIBOR and overnight index swap (OIS) can be used as a proxy of exposure to liquidity risk.

Reports on liquidity provide an early warning and highlight potential stress points. These reports, accompanied by the results of liquidity stress tests provide banks with information about sound liquidity funding using six key metrics:

- Loan-to-deposit ratio (LTD),
- One week and one month liquidity ratios,
- Cumulative liquidity model,
- Liquidity risk,
- Concentration and funding source report,
- Inter-entity lending report, as listed by Choudhry (2012, p. 654).

All of the metrics above provide valuable information to banks and other consolidated entities, giving information about exposure of a bank to funding rollover risk (gap risk), daily funding requirements and the possible self sufficiency of banking subsidiaries or branches (Choudhry \& Landuyt, 2010, p. 145).

LTD measures the relationship between lending and customer deposits, and is usually reported monthly. It is also a measure of the self-sustainability of a bank. As Van den End (2016, p. 238) puts it, LTD ratio measures the structural dimension of liquidity risk, which is rooted in the business models of banks and the structure of the financial system. A ratio value above $100 \%$ indicates excessive asset growth and overreliance on wholesale funding, values below $70 \%$ indicate excess liquidity (LTD ratio over $120 \%$ is an indicator for a banking crisis and an LTD ratio of around $80 \%$ is associated with impaired financial intermediation). The LTD ratio is an appropriate measure of the contribution of customer funding to overall funding. Also, a LTD (customer funding) gap can be derived, as an indicator of reliance on wholesale funding, and is calculated as the difference between total customer lending and total customer funding (Choudhry 2012, p. 655). The LTD ratio value can also be written as an index, meaning that an LTD ratio of $120 \%$ is equal to index 1.2 etc.

LTD ratio conveys a message about the bank's liquidity position (maturity structure) and concentration of funding that is inherent in different business models (deposit vs. wholesale
funding models). Speaking generally banks should strive to reduce LTD ratio as a part of structural measures intended to increase resilience over the long-term. Corrective measures must strengthen the short-term resilience of the bank's liquidity risk profile by ensuring that it has sufficient high-quality liquid assets to survive a stress scenario (BCBS, 2015b).

LTD ratio can be used by a regulative authority to address both structural (long-term) and cyclical (short-term) liquidity risks, says Van den End (2016, p. 238), he further notes that LTD ratio tends to fluctuate, reflecting short-term financial cycles. Ratio tends to increase when market funding is abundantly available to finance credit growth and it decreases in stressed conditions when wholesale funding is substituted by customer deposits, which decreases loan growth.

In her research Le Leslé (2012, p. 6) found that European banks underperform based on a selection of ratios, such as the loan-to-deposit ratio, the funding gap, the level of reliance on wholesale funding to finance the funded balance sheet, the deposit funding ratio, the core funding ratio and interbank exposures, as measured by the share of loans to and deposits from other banks; and deposit rates versus 3 month EURIBOR.

As an additional measure of managing liquidity the Bank of Slovenia proposed the implementation of a metric called gross loans to deposits flows (GLTDF), as a macroprudential instrument that is supplement to LTD. GLTDF measures the minimum requirements of changes in loans to the non-banking sector relative to changes in nonbanking sector deposits, where the ratio is calculated on changes in stocks before considering impairments. Its purpose is to slow down decline of the LTD ratio, to stabilize the banking system funding structure and mitigate systemic risk. Minimum requirements state that from the $1^{\text {st }}$ of April 2015, banks should set a target GLTDF ratio equal to or larger than $40 \%$ in case of positive annual increase of deposits, or should be equal to or larger than $60 \%$ when calculated before considering impairments (Bank of Slovenia, 2014).

Equally important is scenario analysis and stress testing to ascertain the extent of funding difficulties for a bank in the event of idiosyncratic or market wide stress (Choudhry, 2012, p. 707). In case of unexpected occurrences, normal liquidity sources may cut down their funding causing deposit run-offs (Bessis, 2012, p. 286). As Matz and Neu (2007, p. 37) say, scenario testing is far more important to liquidity risk measurement and management than for other risks (credit, IR or operations risk).

As Matz and Neu (2007, p. 120) say, liquidity risk management is a three legged stool when talking about the three main strategies for ensuring sufficient liquidity, and these are: maintain sufficient structural liquidity cushions - managing forecasted cash in- and outflows for each maturity bucket, scenario and stress level; reduce contingent liquidity risk - managing funding concentrations, stability of funding, extending liability term structure; maintain a sufficient amount of easily liquefied assets - including the
maintenance of sufficient liquidity reserves.

### 4.4.2 Liquidity sources (funding)

In general, if bank funding comes from retail deposits and they represent $70 \%$ of funding or more, then these banks can be defined as retail banks. As Nikolaou (2009, p. 12) mentions there are a few primary liquidity sources available to a bank: the depositors, market ("originate-to-distribute" role or liquidity generation through securitization), interbank market and central bank funding. Liquidity can be obtained through numerous types of contracts, varying in the degree and type of collateralization, tenor, and type of counterparty (Fecht, Nyborg, \& Rocholl, 2011, p. 345).

Vasquez and Federico (2015, p. 2) find that global banks tend to enjoy a more stable funding base than domestic banks, due to flight to safety, particularly during times of market distress. Larger bank size might reduce the wedge between the costs of internal and external funds and affect the relationship between loan growth and internal funds (Brewer et al., 2014, p. 233).

One of the BCBS (2008) principles says that a bank should establish a funding strategy that provides diversification in both, sources and tenor of funding. It should maintain an ongoing presence in its chosen funding markets and strong relationships with funds providers to promote effective diversification of funding sources. A bank should regularly gauge its capacity to raise funds quickly from each source. It should identify the main factors that affect its ability to raise funds and monitor those factors closely to ensure that estimates of fund raising capacity remain valid.

Bologna (2015, p. 93) finds that structural funding plays a key role in determining the default risk of bank, since a weaker customer deposit base and a higher share of wholesale funding (expressed by higher LTD ratio) negatively affect the likelihood of bank failure if other bankspecific (profitability, capitalization, asset quality and size) macroeconomic factors remain unchanged.

Matz and Neu (2007, p. 103) list three main sources of bank liquidity: liquidity reserves, borrowed funds and operating cash flows. Liquidity reserves are those assets that can be readily and reliably sold, secondary liquidity reserves, liquidity warehouses or liquidity storehouses, and are usually bank funds invested in securities and actively traded on capital markets. Liquidity reserves often focus on assets that are both readily marketable and shortterm. Saunders and Cornett (2008, p. 533) mention some other sources of liquidity for banks. They are demand deposits, checking accounts, retail time deposits and CDs, wholesale CDs, central bank funds and repo agreements along with commercial papers, treasury notes and other items.

Fecht et al. (2011, p. 346) did a research on the cost of liquidity and found that increase in liquidity imbalances across banks lead to more aggressive bidding on ECB repos and consequently higher prices were paid. A bank is willing to pay more for liquidity as a result of decreased financial health. Larger banks pay less for liquidity and as imbalances increase, so does the cost of liquidity for smaller banks. Institutions that are part of formal liquidity networks pay more than other institutions, unless they also have government guarantees that reduce the cost of liquidity for a bank but they do not protect against liquidity squeezes.

### 4.5 Problems of low interest rates and liquidity

Low or negative interest rates have different affects on the economy, and they differ across various sectors. Matz and Neu (2007, p. 47) describe how IR affects liquidity, or better said change IR. Firstly, it may affect the term structure of bank's assets and liabilities, e.g. at low IR customers may not wish to renew maturing CDs. Also there is an effect on assets and liabilities with embedded options, volumes of new bank assets (loans) and liabilities (new depositors) are directly affected by changes of IR. There is also an indirect effect of IR on assets and liabilities caused by low rates, such as in crisis, where the whole business environment is changed, which may cause the amount of NPLs to increase.

Monetary policy measures such as QE and negative rates have possible benefits in the economy, such as price stability, growth, decline in NPLs or declining wholesale funding costs. There are also potentially negative effects of low and negative interest rates on banks, as predicted by the IMF (2016a).

The first negative impact is connected to liability repricing, as zero lower bound on deposits will have the largest negative impact on those banks with the largest household and corporate deposit bases, as more of their funding base will be stuck at zero. The second negative impact is on asset repricing, meaning that a negative rate problem is likely to be more pronounced in countries where loan book reprices are the quickest, suggesting that asset yields will drop most quickly in these markets, partially reflecting the high level of variable rate mortgages, but also shorter loan maturities or higher levels of competition between banks. The third negative impact will be on the net interest margin and profit profile caused by squeezing of the NIM, affecting overall profitability and performance. Banks will face the challenge of how to generate that lost income from sources other than NIM, with one solution being an increase of fees and commissions (IMF, 2016a).

The capital adequacy ratio and non-performing loans ratio have a higher impact on the default bank ratio, but profitability and the loan-to-deposit ratio have a smaller impact if there is change in exogenous factors, notes Bologna (2015, p. 95). Bank liquidity creation is closely related with the regulatory concept of structural liquidity mismatches in bank balance sheets. The latter reflects the portion of long-term, illiquid assets (i.e., structural positions) that are financed with short-term funding and non-core deposits. Bank liquidity creation is
also related to the leverage ratio, meaning a bank with a higher leverage ratio would also create more liquidity (Vasquez \& Federico, 2015, p. 3).

NSFR is designed to reduce funding risk arising from the mismatch between assets and liabilities, while the LCR addresses liquidity risk by increasing bank holdings of highquality, liquid assets. While not targeted directly, the role of banks in liquidity creation and market liquidity may be adversely affected as an unintended consequence (King, 2013, p. 4145).

Caggiano, Calice, Leonida and Kapetanios (2016, p. 109) find that in addition to liquidity risk, external vulnerabilities, as proxied by the ratio of M2 to reserves and banking system exposure to FX risk significantly increase the probability of systemic financial distress, as do excessive credit growth and monetary instability. Baldan, Zen and Rebonato (2012, p. 48) find that banks' efforts to improve liquidity had simultaneously reduced interest rate exposure, but simultaneously, the effort to reduce liquidity risk lowered the interest rate margin and consequently reduced the capital needed to absorb interest rate risk.

## 5 METHODOLOGY AND RESULTS INTERPRETATION

### 5.1 Methodology

In this work I will attempt to show a relationship between ECB interest rates and bank funding structures, as observed through LTD ratio, and shall provide detailed insight on the relationship between interest rates and various funding structure categories (variables) using Pearson's correlation statistics. I have decided to use LTD statistics because they also show possible liquidity issues as seen through the LTD gap (difference between total loans and non-MFIs deposits), which can also be viewed as an indicator of overreliance on wholesale funding. I shall attempt to answer two main research questions:

1. How and in what manner do interest rates correlate with bank funding structure?
2. How do interest rates correlate with two ratios - LTD and GLTDFq?

I have collected data from the publicly available database of the European Central Bank's Statistical Data Warehouse (http://sdw.ecb.europa.eu/) on aggregated balance sheet items of the European monetary union. The analyses were performed using different countries on these aggregated balance sheets and will be compared. Data were collected for periods from the second quarter of 2006 ( 2006 Q2) until the second quarter of 2016 (2016 Q2). Analysis of aggregated balance sheets was performed for the EMU countries. Furthermore, in the interpretation of data I shall use country abbreviation codes.

The data is divided by loans and deposits to monetary financial institutions (MFIs) and loans and deposits to non-monetary financial institutions (non-MFIs), with each being divided
further by domestic (specific country) loans or deposits, other loans or deposits to other EMU countries and loans or deposits to non-EMU countries.

Interest rates used in the analyses are those from the ECB that I accuired from the Statistical Data Warehouse, from the ECB web page. I have used the ECB interest rate on overnight deposits, interest rate on overnight loans and EURIBOR 3M (for which quarterly transformation was used) that is the rate based on which European banks borrow funds from one another. It is affected by various economic factors, such as inflation and economic growth and it also acts as the basis for charging loans to non-MFIs.

Below in Table 2 are descriptions of variables that I have used, along with accompanying abbreviations and units. Unless noted otherwise outstanding amounts of variables are in millions of EUR. Additional explanations about the data selection and detailed data per country (descriptive statistics and correlation tables) are presented in the Appendix. To describe correlation strength among different variables I shall use the following description of correlation strengths: very weak ( $0.0-0.19$ ), weak ( $0.2-0.39$ ), moderate ( $0.4-0.59$ ), strong ( $0.6-0.79$ ) and very strong ( $0.8-1.0$ ). In the correlation tables (Table 7 and Table 8 ), data marked with a double asterisk $\left({ }^{* *}\right)$ is significant at the 0.01 level ( 2 -tailed), and data marked with a single asterisk (*) is significant at the 0.05 level (2-tailed).

Table 2. Description of variables

| Variable | Varible <br> name | Variable <br> code | Notes | Units |
| :--- | :--- | :--- | :--- | :--- |
| Loans to Euro area (changing composition), <br> Non-MFIs | L_E_area_- <br> Non-MFIs |  | millions of $€$ |  |
| Loans to EU member states not belonging <br> to the Euro area, Monetary financial <br> institutions (MFIs) | L_EU_me <br> mb_Non_E <br> MU_MFIs |  | millions of $€$ |  |
| Loans to EU member states not belonging <br> to the Euro area, Non-MFIs | L_EU_me <br> mb_Non_E <br> MU_Non_ <br> MFI |  | millions of $€$ |  |
| Loans to Domestic (home or reference <br> area), Monetary financial institutions <br> (MFIs) | L_Domesti <br> c_MFIs |  | millions of $€$ |  |
| Loans to Domestic (home or reference <br> area), Non-MFIs | L_Domesti <br> c_Non_MF <br> Is |  | millions of $€$ |  |
| Deposits from Euro area (changing <br> composition), Monetary financial <br> institutions (MFIs) | D_E_area_ <br> MFIs |  | millions of $€$ |  |
| Deposits from Euro area (changing <br> composition), Non-MFIs | D_E_area_- <br> Non_MFIs |  | millions of $€$ |  |
| Deposits from EU member states not <br> belonging to the Euro area, Monetary <br> financial institutions (MFIs) | D_EU_me <br> mb_Non_E <br> MU_MFIs |  | millions of $€$ |  |
| Deposits from EU member states not <br> belonging to the Euro area, Non-MFIs | D_EU_me <br> mb_Non_E <br> MU_Non_ <br> MFIs |  | millions of $€$ |  |

Table 2. Description of variables (con.)

| Variable | Varible name | Variable code | Notes | Units |
| :---: | :---: | :---: | :---: | :---: |
| Deposits from Domestic (home or reference area), Monetary financial institutions (MFIs) | D_Domesti <br> c_MFIs |  |  | millions of $€$ |
| Deposits from Domestic (home or reference area), Non-MFIs | D_Domesti <br> c_Non_MF <br> Is |  |  | millions of $€$ |
| LTD gap | LTD_gap |  | Equation provided in appendix | millions of $€$ |
| Loan-to-deposit ratio | LTD |  | Equation provided in appendix | ratio |
| Gross loan-to-deposit flow (quarterly) | GLTDFq |  | Equation provided in appendix | ratio |
| ECB Marginal lending facility rate | $\begin{aligned} & \hline \begin{array}{l} \text { ECB_IR_L } \\ \text { oans } \end{array} \\ & \hline \end{aligned}$ | ECB_IR_L |  | \% |
| ECB Deposit facility rate | $\begin{array}{\|l} \hline \begin{array}{l} \text { ECB_IR_D } \\ \text { eposits } \end{array} \\ \hline \end{array}$ | ECB_IR_D |  | \% |
| EURIBOR 3M | $\begin{aligned} & \text { EUROBOR } \\ & \hline \end{aligned}$ |  |  | \% |
| \% of Loans to Euro area (changing composition), Non-MFIs |  | L1 | as \% of Total loans | \% |
| \% of Loans to EU member states not belonging to the Euro area, Monetary financial institutions (MFIs) |  | L2 | as \% of Total loans | \% |
| \% of Loans to EU member states not belonging to the Euro area, Non-MFIs |  | L3 | as \% of Total loans | \% |
| \% of Loans to Domestic (home or reference area), Monetary financial institutions (MFIs) |  | L4 | as \% of Total loans | \% |
| \% of Loans to Domestic (home or reference area), Non-MFIs |  | L5 | as \% of Total loans | \% |
| \% of Deposits from Euro area (changing composition), Monetary financial institutions (MFIs) |  | D1 | as \% of Total deposits | \% |
| \% of Deposits from Euro area (changing composition), Non-MFIs |  | D2 | as \% of Total deposits | \% |
| \% of Deposits from EU member states not belonging to the Euro area, Monetary financial institutions (MFIs) |  | D3 | as \% of Total deposits | \% |
| \% of Deposits from EU member states not belonging to the Euro area, Non-MFIs |  | D4 | as \% of Total deposits | \% |
| \% of Deposits from Domestic (home or reference area), Monetary financial institutions (MFIs) |  | D5 | as \% of Total deposits | \% |
| \% of Deposits from Domestic (home or reference area), Non-MFIs |  | D6 | as \% of Total deposits | \% |

Source: ECB Statistical Data Warehouse

### 5.2 Results interpretation

The main drawback I faced was that data were collected from aggregated balance sheets, meaning that I was unable to determine how funding structure and LTD ratio had changed for different types of banks (savings, commercial, universal...). I expect that this issue is exacerbated for counties in which "shadow banking" institutions are large, such as in the Netherlands ( $27.2 \%$ ), Luxemburg ( $22.2 \%$ ), Ireland ( $12 \%$ ) and France ( $11.6 \%$ ) for example, which have the largest shadow banking sectors ${ }^{10}$, and should have the highest ratio of loans to MFIs and deposits from MFIs among countries included in the research. In terms of total loans and total deposits (means), the largest banking sectors were in DE, FR; IT, ES and NL. The differences are substantial between these countries and other countries analysed. For total loans these countries represented for roughly $83 \%$ of all loans in the Euro area. That is why the differences in sector size are likely to have impacted on the data analysis and results.

### 5.2.1 Data analysis and results interpretation from 2006 Q2 to 2016 Q2

As mentioned, the largest by size in terms of amounts of total loans in decreasing order are DE, FR, IT, NL, AT, IE, BE, PT, EL ,FI, LU, CY, SK, SI, LT, LV, EE and MT. When looking at total deposits, the largest were DE and FR, followed in order by ES, IT, NL, BE, IE, AT, LU, EL, PT, FI, CY, SK, SI, MT, LT, LV, EE (Table 3).

Of the countries analysed the following have the highest average loan exposure to the Euro area non-MFIs: DE, FR, IT, ES and NL (with Germany having an average of 2,898,578 in millions of $€$ loans outstanding). Countries that loaned least to the Euro area are the Baltic countries, followed by SI, SK, MT and CY. France, Germany and Italy were most exposed in loans to MFIs and in loans to non-MFIs, the same is true for MFIs and non-MFIs deposits. In terms of \% exposure to MFIs and non-MFIs the list is mixed. LU had the highest exposure in terms of loans to MFIs, with nearly $39 \%$, followed by IE (29.04\%), FR (28.18\%), AT (21.79\%), DE (21.74\%), MT (20.84\%) and FI (19.71\%). The countries that provided the most loans to non-MFIs were SI, PT, LT, ES and EL all in shares of total loans. Looking at deposits from MFIs and non-MFIs, countries banks that received the most funding from MFIs were IE, FR, LU, AT and MT. The most funded by non-MFIs were SK, NL, LV, EE and LT (Table 3).

One interesting thing is that the highest ratio of non-MFIs funding (relative to total funding) does not necessarily result in the lowest LTD ratio. BE and LU are two such cases, where Belgium had LTD of 0.8308 and a little more than $76 \%$ funding from non-MFI and in the case of Luxembourg where LTD was 0.9 and only $53 \%$ of funding coming from non-MFIs (Table 5). Stemming from the LTD equation provided in the Appendix, it can be seen that decreasing loans or increased non-MFIs funding, or both at the same time will have a

[^8]decreasing effect on LTD ratio.

In order to provide a snapshot of the funding structure profile and any differences between funding structures of all countries included in the research I have calculated percentage ratios of balance sheet items. Ratios were calculated in relation to total loans for the asset side of balance sheet and total deposits for the liability side of the balance sheet. All descriptions of ratios and variable codes can be found in Table 2. Calculations were made based on mean values.

I shall begin the description of funding structures with L 1 (loans to the Euro area non-MFI) where the mean value across countries was $44.29 \%$. Countries with the largest share of L1 were PT, SI, LT and ES, while IE, FR, LU, FI and DE had the smallest exposure to loans to non-MFIs. Also there were no largest differences across countries as far as this variable goes. The largest differences across countries were in cases of loans to non-Monetary Union. Looking at ratio L2 the average across countries was $4.34 \%$, with large differences across countries with MT ( $15.26 \%$ ), $\operatorname{IE}(15.24 \%)$ and $\operatorname{LU}(15.04 \%)$ having the largest share of loans to non-EMU non-MFIs while countries like SI ( $0.25 \%$ ) and IT ( $1.2 \%$ ) had the smallest exposures. Differences were similarly high in the case of L3 (non-EMU non-MFIs loans) with an average across countries of $1.04 \%$. MT, LU and BE had the highest ratio of loans to non-EMU non-MFIs. On the lower end of the scale were countries like LT, IT and PT with a ratio below $0.2 \%$ (Table 4).

The domestic loans category showed very different results, particularly in the case of loans to domestic MFIs (L4). The average across countries was $7.1 \%$. Countries with the highest loans to domestic MFIs were FR (24.65\%) and LU (23.7\%), followed by AT (17.78\%) and DE ( $17.38 \%$ ). On the other hand EL and LT had the smallest ratios of L4 mean value. L5 (domestic non-MFIs loans) were in most cases close to the average of 42.23\%. LU (17.97\%), IE ( $31.75 \%$ ) and MT ( $33.51 \%$ ) had the smallest share of this variable represented. The majority of loans were given to non-MFI (average of $88.21 \%$ ) and countries like LT, SI, PT and EL had the largest share. LU (38.91\%), IE (29.03\%), FR (28.18\%) and AT (21.79\%) loaned the most to MFIs. Domestic loans amounted to nearly half of all loans given with loans to the Euro area, averaging $44.4 \%$. Generally speaking, all countries included in the research data exhibited a similar to average (snapshot) loan structure in the case of Euro area loans (L1) and domestic non-MFIs loans (L5). Some of the largest differences were in loans to non-EMU, with MT, LU, IE, BE and FI having the highest shares of all countries (Table 4).

Moving on to deposits (Table 4) specifically D1, there were again some of the largest differences. On average countries had $15.31 \%$ of loans coming from the Euro area non-MFIs with LU, IE, FR and MT at the top. Surprisingly, SI also had quite a high share of MFIs deposits at $19.1 \%$. D2 averaged at $35.65 \%$. SK, NL, EE and BE had over $40 \%$ share of nonMFIs Euro area deposits, the smallest were IE, FR, MT and LU.

D3 and D4 (non-EMU deposits) had the smallest ratio on average. D3 averaged at 3.64\% but again there were countries that had over $11 \%$ of funding from non-EMU MFIs like MT, FI, EE, LT and IE. The average for D4 was $1.17 \%$ with quite large differences between countries. LV had the largest share of D4 at $6.34 \%$ followed by EL ( $5.58 \%$ ) and BE ( $3.37 \%$ ). In the case of domestic deposits from MFIs (D5) results were very different. The average of D5 was at $7.7 \%$. FR had largest share of domestic MFIs deposits at $21.48 \%$ followed by IE, AT, DE, IT and EL. The ratio of domestic MFIs loans was smallest in the Baltic countries. D6 averaged at $33.21 \%$ with the smallest differences. SK (44.84\%), LT (39.6\%), EE ( $39.67 \%$ ) and NL ( $38.47 \%$ ) had the largest share of domestic non-MFIs funding, and IE, LU, FR and MT had the smallest (Table 4).

Overall, IE (58.53\%), FR (51.04\%), LU (46.62\%) and AT (39.07\%) had the largest share of deposits from MFIs, while the average across countries was almost at $30 \%$. As may be seen on Table 4 , the average funding ratio was $30-70 \%$ or $40-60 \%$ of MFIs to non-MFIs funding with the majority of countries falling into that frame. The ratio of deposits from the Euro area ( $50.91 \%$ ), non-EMU deposits (5.25\%) and domestic funding ( $40.89 \%$ ) were similar to loans structures. The largest differences across countries were in non-EMU funding.

Looking at the key quarterly interest rate statistics from the ECB on loans and deposits, data show the following: at the peak of the financial crisis, key IR were $3.25 \%$ for the deposit facility and $5.25 \%$ for the marginal lending facility and have since begun to drop. Deposit IR dropped to $0 \%$ in Q3 of 2012 and began to move in the negative direction in Q2 of 2014. Because changes of the ECB key interest rate on deposits and loans did not change continuously (these are changed every six weeks) I decided to include data for the 3-month EURIBOR rate, which changes daily. Later on I shall base further analysis on the EURIBOR rate. One reason for choosing EURIBOR is that banks also use this rate as a reference rate, transmitted to customers. From 2015 Q2 EURIBOR 3M also moved into negative territory.

The data on LTD ratio values show large differences. As can be seen, the average LTD ratio across all countries was 1.38 , meaning that $€ 1$ of stable (non-MFIs) deposits created $€ 1.38$ of loans for the 2006 Q2 to 2016 Q2 period, which is at the rather high end of "normal" LTD values - according to the theoretical background, values above 1 are an indicator of excessive growth and overreliance on wholesale funding, whereas values below 0.7 indicate excess liquidity. Thereby LTD values ranging from 0.9 to 1 or eventually even 1.1 can be defined as normal. When investigating data from 2009 Q1 to 2016 Q2, LTD value has not changed much on average, it was 1.36 . If I again refer to the theory, an LTD ratio value over 1.2 is seen as an indicator of banking crisis. Of the countries analysed, IE, FI, FR, EE and IT had the highest LTD ratios, and BE, LU, SK and MT had the lowest. IE and IT were also among the Euro system countries where banks were affected most severely by the financial crisis (Table 4). Therefore the research of Le Leslé is confirmed in a sense that European banks do underperform based on the loan-to-deposit ratios exhibited in the results.

In order to determine whether decreasing interest rates have any correlation with LTD ratio I have created another data set, ranging from 2009 Q1 onwards, or from the first ECB asset purchase programme. During the period of decreasing interest rates, the average LTD was 1.36. Nearly all countries managed to improve LTD ratio except EL and CY, which to the contrary increased ratio. In the case of EL the LTD increased by 0.0788 (or 7.88 percentage points) and CY increased by 0.0664 ( 6.64 percentage points). The LTD ratios of Finland and Malta also increased, but only slightly (Table 4).

Relating data on LTD ratio to percentage ratios of funding structures (Table 4) it can be observed that the countries with worst LTD ratios had the smallest exposure to Euro area loans (Ireland, France, Finland) with exception of Luxembourg, which had an LTD ratio of 0.9. Furthermore, it can be observed that countries that loaned the least to the domestic MFIs had slightly smaller LTD ratios (Estonia is an exception) but this is not the rule. For the countries included in the average funding structure, roughly $30 \%$ were from MFIs deposits and the rest from non-MFIs deposits. Aslo observable, is that the countries with a higher ratio of business with non-monetary union had higher LTD ratios.
Another reason for higher LTD ratios (above 1.2) may be the high ratios of non-performing loans for countries included in the research, but since then the majority of countries have improved their funding structure and consequently their LTD ratios, with exception of Finland, where LTD ratio has remained on average the same. I must also note that LTD ratios have improved dramatically for the majority of countries during the last year, and it is safe to say, that the decreasing interest rate policy or QE policy had positive consequences on LTD ratios.

A few answers as to the causes of overly highy LTD ratio can be found in the Banking business models monitor (Ayadi \& De Groen, 2015) report. Different market structures can be approximated by different countries. With respect to LTD ratio and market structure, the worst performing countries are the following:

- Finland - roughly $25 \%$ of banks are focused retail, $5 \%$ are diversified retail (type I), roughly $40 \%$ are diversified retail (type II), $3 \%$ are investment banks and $27 \%$ are investment banks.
- France $-25 \%$ of banks are both, focused retail and diversified retail (type I), nearly a quarter of banks are wholesale with around $15 \%$ are diversified retail (type II).
- Ireland - around $2 \%$ are focused retail, $50 \%$ are diversified retail (type I) banks, less than $5 \%$ are diversified retail (type II) and almost $40 \%$ are wholesale banks.
- Italy - $10 \%$ are focused retail, $15 \%$ are diversified (type I), $60 \%$ are diversified retail (type II) and the rest are wholesale or investment banks.

To the contrary, Belgium and Luxemburg both have around $30 \%$ in wholesale business but their LTD ratios are quite healthy. All of the above figures are approximations from graphics
provided in the report. When looking at percentages of asset distribution by types of bank, it can be seen that asset distribution is approximately the same as the percentage of represented business models, meaning that if the focused retail banking model represents $5 \%$ of the sample, it would represent roughly the same amount of assets in the banking system. Two countries that do not follow this pattern are France and Ireland. In the case of France, nearly $70 \%$ of assets are in banking system and in the case of Ireland, the majority, around one third of assets, are in investment banks. There are also cases of Finland, where $90 \%$ of assets are in banks with a diversified model (Type II), and Italy where the same business model represents $70 \%$ of assets.

As an additional measure, which complements LTD ratio statistics and was introduced by the Bank of Slovenia, I have decided to calculate the GLTDFq ratio, as described previously (on p. 37). It measures minimum requirements on changes in loans to the non-banking sector relative to changes in non-banking sector deposits. Its mean value was approximately 0.63 (Table 4), with the average ratio within the norm stated by the Bank of Slovenia. By definition (equation in Appendix) the ratio should be positive and should therefore lead to improvement of LTD ratio. It is in fact quite the opposite since countries that exhibited on average low or even negative GLTDFq ratios did not have LTD ratios that were too high. Generally speaking, just by looking at the equation for calculation of GLTDFq ratio provided in the Appendix, the ratio will tend to be sufficiently high as long as non-MFIs loans and deposits tend to grow every quarter. One problem with this metric is the possible decrease of non-MFIs funding which means the stable funding base is actually decreasing. If loans growth would remain same as in previous periods this would lead to an increasing GLTDFq ratio.

In order to be able to provide an answer to the second research question I performed an analysis to check how interest rates correlate with LTD ratio. Again I will take into consideration two time periods. First I examined all data from 2006 Q2 to 2016 Q2, then checked for any differences from 2009 Q1 to 2016 Q2. The correlation with respect to LTD ratio was performed on variables (shares of funding) L1 to L5, D1 to D6, and ECB interest rates. Due to the different funding structure profiles among countries, the correlation data do not show the same strength of correlation. In particular my interest was the effect of interest rates on funding structures and LTD ratio. Due to the aggregated balance sheet data I was unable to determine exact correlations according to specific bank type and business model and their represented share in aggregated data.

The data on correlation statistics of the funding structure with LTD ratio for the whole data set, spanning 2006 Q2 to 2016 Q2 are on Table 7. I shall begin with the correlation of GLTDFq with LTD ratio. As in the majority of cases, there are no significant data except for two countries, both of which showed weak correlations with LTD, these are FR and PT. As can be seen from the correlation tables in the Appendix, the majority of countries included in the research do not exhibit any statistically significant correlations of interest rates with

GLTDFq ratio, therefore I have decided to omit this statistic from further analysis.

As can be seen on Table 7, some countries do not exhibit statistically significant data to a lot of variables, namely FI and MT, which show no significant correlations with ECB interest rates, and LU where there is no statistically significant correlation with the ECB deposit rate (ECB_IR_D). The main reason for this may be the size and composition of financial sectors in these countries and the ease of obtaining funding through other sources. Some of the countries follow the predicted correlations of different loan and deposit variables, as can be predicted from the equation for the LTD ratio calculation in the Appendix. By these is meant the correlation sign (direction of correlation), where in most cases there was for e.g. variable L1 (loans to the Euro area) a positive direction of correlation. Increasing any of the loan shares (loans to MFIs or non-MFIs) should increase LTD ratio (everything else staying the same), but there are some countries that show an illogical direction of correlation.

The variable that in most cases shows a pattern is D2 (deposits from Euro area non-MFIs) but of course with different correlation strengths due to differences in the share of funding they represent, as can be seen on Table 7. Followoing from the equations for calculation of LTD increase, non-MFI funding should decrease LTD ratio (therefore the negative correlation signs).

When examining the effects of interest rates (ECB_IR_D, ECB_IR_L, and EURIBOR 3M) for data on Table 13, CY and EL stand out, showing negative correlations of interest rates with LTD ratio. In the case of CY the correlations are highly significant - ECB_IR_D ($0.658)$, ECB_IR_L ( -0.784 ) and EURIBOR 3M ( -0.704 ). The data for EL also shows significant correlations - ECB_IR_D (-0.647), ECB_IR_L (-0.700) and EURIBOR 3M (0.676 ). A normal relationship would be such that if interest rates increase the LTD ratio would decrease, but as can be seen from the data for CY and EL, the correlations do not exhibit this relationship.

I have calculated the means of Pearson's correlation coefficients in order to be able to describe the relationship between the ECB interest rates and LTD, to provide an answer to the second research question. By doing this I am able to provide an approximation of correlation of interest rates with LTD ratio in the Euro area. Differences that appear in the results are due to the intrinsically different funding profiles of the banks included in the aggregated data, and to the size of the banking sector, as measured by size of total loans and total deposits. I have taken into consideration only those correlation coefficients with high statistical significance ( $\mathrm{p} \leq 0.05$ ). That being said, the correlations of interest rates with LTD ratio give the following approximations: for ECB_IR_D the correlation coefficient is 0.762, for ECB_IR_L it is 0.845 and for EURIBBOR 3M it is 0.755 .

An answer to the second research question would therefore be that interest rate levels, as determined by the ECB, strongly correlate with LTD ratio. The relationship is linear,
meaning that any increase (decrease) in interest rate would lead to increase (decrease) in LTD ratio. Therefore, generally speaking, the QE monetary policy has had a beneficial effect on the LTD ratio of banks.

Table 3. Share of loans and deposits (2006 Q2 to 2016 Q2)

|  | Total loans (MFIs) | Share of MFI \% | Total loans (non-MFIs) | Share of non_MFIs \% | TOTAL LOANS | Total deposits (MFIs) | Share of MFI \% | Total deposits (non-MFIs) | Share of non_MFIs \% | TOTAL DEPOSITS | LTD gap | LTD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AT | 194628.22 | 21.79 | 698468.29 | 78.21 | 893096.51 | 384222.24 | 39.07 | 599086.02 | 60.93 | 983308.27 | 294010.49 | 1.50 |
| BE | 103365.07 | 13.71 | 650660.37 | 86.29 | 754025.44 | 279827.32 | 23.40 | 916235.34 | 76.60 | 1196062.66 | -162209.90 | 0.83 |
| CY | 11126.83 | 10.42 | 95617.54 | 89.58 | 106744.37 | 36598.37 | 31.95 | 77953.59 | 68.05 | 114551.95 | 28790.78 | 1.38 |
| DE | 1587427.78 | 21.74 | 5712865.90 | 78.26 | 7300293.68 | 2982698.88 | 33.44 | 5938081.27 | 66.56 | 8920780.15 | 1362212.41 | 1.24 |
| EE | 3211.65 | 9.68 | 29959.44 | 90.32 | 33171.09 | 4949.41 | 19.25 | 20757.65 | 80.75 | 25707.06 | 12413.44 | 1.65 |
| EL | 36870.29 | 7.68 | 443166.88 | 92.32 | 480037.17 | 192061.07 | 31.64 | 414953.00 | 68.36 | 607014.07 | 65084.17 | 1.19 |
| ES | 282743.88 | 7.57 | 3450003.39 | 92.43 | 3732747.27 | 943072.07 | 23.28 | 3108429.95 | 76.72 | 4051502.02 | 624317.32 | 1.20 |
| FI | 88752.02 | 19.31 | 370862.66 | 80.69 | 459614.68 | 105675.49 | 29.83 | 248587.93 | 70.17 | 354263.41 | 211026.76 | 1.85 |
| FR | 1728039.73 | 28.18 | 4403040.20 | 71.82 | 6131079.93 | 3646473.78 | 51.04 | 3497698.59 | 48.96 | 7144172.37 | 2633381.34 | 1.77 |
| IE | 249710.17 | 29.04 | 610264.71 | 70.96 | 859974.88 | 594824.80 | 58.54 | 421336.85 | 41.46 | 1016161.66 | 438638.02 | 2.03 |
| IT | 490718.98 | 11.79 | 3672767.24 | 88.21 | 4163486.22 | 1372646.32 | 33.92 | 2673951.41 | 66.08 | 4046597.73 | 1489534.80 | 1.60 |
| LT | 2385.68 | 6.52 | 34215.15 | 93.48 | 36600.83 | 6097.29 | 19.56 | 25077.10 | 80.44 | 31174.39 | 11523.73 | 1.50 |
| LU | 137732.27 | 38.92 | 216158.85 | 61.08 | 353891.12 | 348288.20 | 46.63 | 398710.37 | 53.37 | 746998.56 | -44819.24 | 0.90 |
| LV | 4286.33 | 12.62 | 29680.83 | 87.38 | 33967.17 | 5032.58 | 18.53 | 22123.00 | 81.47 | 27155.58 | 11844.17 | 1.57 |
| MT | 4928.54 | 20.84 | 18723.61 | 79.16 | 23652.15 | 13836.17 | 38.53 | 22077.15 | 61.47 | 35913.32 | 1575.00 | 1.11 |
| NL | 264302.93 | 11.20 | 2096028.61 | 88.80 | 2360331.54 | 360948.59 | 17.59 | 1691087.71 | 82.41 | 2052036.29 | 669243.83 | 1.41 |
| PT | 34574.95 | 6.35 | 509534.41 | 93.65 | 544109.37 | 145267.20 | 26.11 | 411165.05 | 73.89 | 556432.24 | 132944.32 | 1.34 |
| SI | 3572.59 | 5.95 | 56488.71 | 94.05 | 60061.29 | 16420.10 | 26.86 | 44722.85 | 73.14 | 61142.95 | 15338.44 | 1.35 |
| SK | 6254.73 | 8.50 | 67357.20 | 91.50 | 73611.93 | 7569.73 | 8.86 | 77839.34 | 91.14 | 85409.07 | -4227.41 | 0.95 |

Table 4. Loan and funding structure 2006 Q2 to 2016 Q2

|  | AT | BE | CY | DE | EE | EL | ES | FI | FR | IE | MEAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 39.73 | 43.52 | 44.77 | 39.71 | 45.17 | 46.16 | 46.35 | 39.61 | 36.18 | 35.61 | 44.30 |
| L2 | 3.91 | 7.82 | 3.67 | 4.34 | 5.57 | 5.32 | 1.46 | 9.37 | 3.53 | 15.24 | 4.34 |
| L3 | 3.00 | 4.23 | 2.24 | 1.25 | 0.41 | 0.28 | 0.42 | 2.76 | 1.04 | 3.59 | 1.04 |
| L4 | 17.78 | 5.90 | 7.09 | 17.38 | 4.09 | 2.41 | 6.10 | 9.78 | 24.65 | 13.80 | 7.09 |
| L5 | 35.57 | 38.53 | 42.23 | 37.31 | 44.75 | 45.83 | 45.68 | 38.49 | 34.61 | 31.75 | 42.23 |
| Loans to MFIs | 21.79 | 13.71 | 10.42 | 21.74 | 9.68 | 7.68 | 7.57 | 19.31 | 28.18 | 29.04 | 11.79 |
| Loans to non-MFIs | 78.21 | 86.29 | 89.58 | 78.26 | 90.32 | 92.32 | 92.43 | 80.69 | 71.82 | 70.96 | 88.21 |
| L_E_area_Total | 39.70 | 43.53 | 44.99 | 39.70 | 45.17 | 46.20 | 46.34 | 39.42 | 36.15 | 35.73 | 44.36 |
| L_Non_EMU_Total | 6.88 | 12.11 | 5.74 | 5.59 | 5.91 | 5.57 | 1.90 | 12.02 | 4.51 | 18.28 | 5.59 |
| L_Domestic_Total | 53.42 | 44.36 | 49.27 | 54.71 | 48.92 | 48.23 | 51.76 | 48.56 | 59.34 | 45.99 | 49.94 |
| D1 | 20.73 | 13.93 | 20.04 | 16.87 | 7.94 | 15.31 | 12.33 | 8.69 | 25.07 | 27.60 | 15.31 |
| D2 | 31.69 | 40.13 | 35.27 | 33.34 | 40.24 | 31.88 | 38.76 | 35.65 | 24.92 | 22.68 | 35.65 |
| D3 | 1.44 | 4.26 | 1.37 | 2.59 | 11.49 | 3.64 | 2.65 | 13.06 | 4.68 | 11.19 | 3.64 |
| D4 | 0.46 | 3.37 | 1.65 | 0.72 | 1.27 | 5.58 | 0.42 | 2.05 | 0.68 | 2.70 | 1.17 |
| D5 | 16.70 | 5.10 | 8.78 | 14.05 | 0.39 | 11.93 | 8.18 | 7.05 | 21.48 | 16.77 | 7.71 |
| D6 | 28.98 | 33.21 | 32.89 | 32.42 | 38.67 | 31.65 | 37.67 | 33.51 | 23.17 | 19.06 | 33.21 |
| Deposits from MFIs | 39.07 | 23.40 | 31.95 | 33.44 | 19.25 | 31.64 | 23.28 | 29.83 | 51.04 | 58.54 | 29.83 |
| Deposits from non-MFIs | 60.93 | 76.60 | 68.05 | 66.56 | 80.75 | 68.36 | 76.72 | 70.17 | 48.96 | 41.46 | 70.17 |
| D_E_area_Total | 52.41 | 54.06 | 56.18 | 50.21 | 48.23 | 47.36 | 51.05 | 43.78 | 50.01 | 50.08 | 50.91 |
| D_Non_EMU_Total | 1.88 | 7.63 | 2.92 | 3.31 | 12.46 | 9.12 | 3.11 | 16.51 | 5.25 | 14.46 | 5.25 |
| D_Domestic_Total | 45.71 | 38.30 | 40.90 | 46.48 | 39.31 | 43.53 | 45.84 | 39.71 | 44.74 | 35.47 | 40.90 |
| LTD gap [mio €] | 294010.49 | -162209.90 | 28790.78 | 1362212.41 | 12413.44 | 65084.17 | 624317.32 | 211026.76 | 2633381.34 | 438638.02 | 1 |
| LTD | 1.50 | 0.83 | 1.38 | 1.24 | 1.65 | 1.19 | 1.20 | 1.85 | 1.77 | 2.03 | 1.38 |
| GLTDFq | 0.16 | 0.72 | 2.45 | -0.01 | -2.62 | 1.77 | 1.29 | -0.19 | 0.73 | 6.01 | 0.63 |

Table 4. Loan and funding structure 2006 Q2 to 2016 Q2 (con.)

|  | IT | LT | LU | LV | MT | NL | PT | SI | SK |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| L1 | 44.30 | 46.77 | 38.58 | 43.91 | 40.70 | 45.36 | 47.25 | 46.88 | 45.53 | 44.30 |
| L2 | 1.20 | 3.08 | 15.04 | 4.58 | 15.26 | 7.35 | 2.24 | 0.25 | 2.01 | 4.34 |
| L3 | 0.20 | 0.18 | 4.71 | 0.95 | 5.80 | 1.70 | 0.20 | 0.63 | 0.72 | 1.04 |
| L4 | 10.71 | 3.42 | 23.70 | 8.22 | 4.73 | 3.91 | 4.09 | 5.71 | 7.14 | 7.09 |
| L5 | 43.60 | 46.56 | 17.97 | 42.33 | 33.51 | 41.67 | 46.22 | 46.54 | 44.60 | 42.23 |
| Loans to MFIs | 11.79 | 6.52 | 38.92 | 12.62 | 20.84 | 11.20 | 6.35 | 5.95 | 8.50 | 11.79 |
| Loans to non-MFIs | 88.21 | 93.48 | 61.08 | 87.38 | 79.16 | 88.80 | 93.65 | 94.05 | 91.50 | 88.21 |
| L_E_area_Total | 44.36 | 46.76 | 38.46 | 43.99 | 40.31 | 45.41 | 47.25 | 46.91 | 45.87 | 44.36 |
| L_Non_EMU_Total | 1.38 | 3.30 | 19.64 | 5.45 | 21.77 | 8.94 | 2.45 | 0.82 | 2.84 | 5.59 |
| L_Domestic_Total | 54.26 | 49.94 | 41.90 | 50.56 | 37.92 | 45.65 | 50.30 | 52.28 | 51.29 | 49.94 |
| D1 | 18.78 | 7.92 | 33.00 | 8.95 | 23.18 | 8.55 | 14.74 | 19.10 | 5.59 | 15.31 |
| D2 | 32.90 | 39.97 | 31.03 | 39.31 | 30.87 | 41.72 | 37.79 | 37.03 | 45.38 | 35.65 |
| D3 | 2.33 | 11.43 | 3.08 | 8.30 | 14.13 | 7.24 | 3.33 | 1.52 | 1.44 | 3.64 |
| D4 | 0.26 | 0.42 | 1.17 | 6.35 | 1.37 | 2.05 | 0.18 | 0.12 | 0.60 | 1.17 |
| D5 | 13.38 | 0.66 | 10.07 | 1.41 | 1.82 | 1.97 | 7.71 | 5.78 | 2.16 | 7.71 |
| D6 | 32.34 | 39.60 | 21.65 | 35.68 | 28.62 | 38.47 | 36.25 | 36.46 | 44.84 | 33.21 |
| Deposits from MFIs | 33.92 | 19.56 | 46.63 | 18.53 | 38.53 | 17.59 | 26.11 | 26.86 | 8.86 | 29.83 |
| Deposits from non-MFIs | 66.08 | 80.44 | 53.37 | 81.47 | 61.47 | 82.41 | 73.89 | 73.14 | 91.14 | 70.17 |
| D_E_area_Total | 51.61 | 47.93 | 63.91 | 48.21 | 53.34 | 50.31 | 52.27 | 56.13 | 50.91 | 50.91 |
| D_Non_EMU_Total | 2.49 | 11.56 | 4.24 | 14.65 | 16.13 | 9.21 | 3.51 | 1.60 | 2.01 | 5.25 |
| D_Domestic_Total | 45.90 | 40.51 | 31.85 | 37.14 | 30.53 | 40.48 | 44.22 | 42.27 | 47.07 | 40.90 |
| LTD gap [mio €] | 1489534.80 | 11523.73 | -44819.24 | 11844.17 | 1575.00 | 669243.83 | 132944.32 | 15338.44 | -4227.41 | $/$ |
| LTD | 1.60 | 1.50 | 0.90 | 1.57 | 1.11 | 1.41 | 1.34 | 1.35 | 0.95 | 1.38 |
| GLTDFq | -1.09 | 0.43 | -0.18 | 0.64 | 0.17 | 2.62 | 0.63 | 0.10 | 1.20 | 0.63 |

Regarding interest rate with funding structures, I have decided to use only the EURIBOR 3M interest rate. The reason for this is that the ECB_IR_D and ECB_IR_L change only every six weeks, where as the EURIBOR rates change daily. Therefore use of the EURIBOR rate as an input for correlations should give more relevant results. The other reason for using only the ERUIBOR 3M is its role of charging loans or deposits to non-MFIs. Correlation results differ from one country to another mainly because of differing funding structures. Table 8 provides correlation data. Beginning with loan structures, the majority of countries show a negative correlation with EURIBOR, meaning that if interest rates increase, then loan quantities decrease. This is best observed from the L1 funding structure, where correlations are negative and strong to very strong. In the cases of FR, IE, LT and SI, strangely, the opposite is true and loans to the Euro area non-MFIs increase with rising interest rate.

Also shown on Table 8, is that increases of interest rate cause countries to increase loans to non-Monetary Union countries (L2 and L3). The results regarding domestic loans (L4 and L5) also differentiate, and there are quite a lot of missing values. For loans to domestic nonMFIs (L5), it can be said that an increase in loans would most likely decrease quantities of loans, but again this is not the case for all countries, where L5 shares would increase.

Looking at D1 on Table 8, it is not surprising that an increase in EURIBOR would have an increasing effect on Euro area MFIs deposits. Under current conditions, in which rates are decreasing, many MFIs find other more tempting but possibly riskier investments as alternatives to deposits. For other categories data show mixed and differentiating correlations.

Because correlation results differ and there is no clear way of describing the effects of EURIBOR 3M on bank funding structures, I have calculated mean values of correlations with funding structure ratios in order to describe an approximate relationship of bank funding structures to interest rate. As in the previous case, I have only included those correlation coefficients that show a high statistical significance. The generalized approximations of correlations for loan ratios are: L1 (-0.547), L2 (0.729), L3 (0.389), L4 (-0.405), L5 (-0.456), and for deposit structures: D1 (0.657), D2 (-0.747), D3 (0.739), D4 (-0.448), D5 (0.310) and for D6 (-0.743).

In answer to the first research question - any increase or decrease in interest rates would have changed the funding structure in a different way. If I interpret the results through the framework of QE and decreasing interest rates, then it can be said that loans to the Euro area non-MFIs (L1), loans to domestic MFIs (L4) and non-MFIs (L5) tend to increase with decreasing interest rates. If looking at the liability side of balance sheet ratios, correlations show strange data in cases of deposits from non-MFIs in the Euro area, non-Euro area and domestic ones (D2, D4, D6). In an environment of decreasing interest rates the ratios of nonMFIs deposits seem to decrease, while the opposite is true for deposits from MFIs from the Euro area, non-Euro are and domestic (D1, D3, D5) - decreasing interest rates seem to lead
to increases in MFIs deposits.

As previously mentioned, a bank with greater funding flexibility should be more immune to exogenous shocks of changes in funding (Brewer et al, 2014), and that lending activity does not decrease if banks maintain a more stable and stronger deposit base (Buch \& Goldberg, 2015).

One problematic issue to be noted when reading the Financial stability report of the Bank of Slovenia (2016), is that in recent years, because of challenges rendered by the low interest rate on deposits, banks experience difficulties in drawing new stable long-term deposits. Instead, Slovenian banks have, since 2013, drawn significant amounts of sight deposits that are used to fund longer-term assets. In 2014 sight deposits represented $44 \%$ of the bank funding structure, increasing to $53 \%$ in 2015 and rising again to $61 \%$ in 2016. During 2015 $30 \%$ of assets with maturity up to 1 year and $16 \%$ of assets with maturity above 1 year are being funded by sight deposits (at the end of 2015 they were increased to $38 \%$ of assets up to 1 year being funded by sight deposits and $19 \%$ of assets above 1 year).

This practice is rather problematic since in the case of economic downturn banks can face runs on deposits, which can lead to liquidity problems. On the other hand, as mentioned before, depositors rarely choose to draw demand deposits. If more banks began to use the practice of relying on sight (demand), deposits could also be the reason for other drastic improvements of LTD ratios. Simultaneously, it must be said that although depositors can choose to withdraw funds from demand deposit accounts at no prior notice, they rarely choose to do so (Cornett, 2011). Additionally, when banks are faced with liquidity distress they tend to resort to central bank funding if it is available, a pattern that is observed in Irish, Portuguese and Slovenian banks. Therefore banking regulators and supervisors should pay more attention to the viability and sustainability of individual bank funding policies because of the interconnectedness of the banking sector (Košak, 2014).

### 5.2.2 Data analysis and results interpretation from 2009 Q1 to 2016 Q2

In order to check whether including data from just before and during the financial crisis has in any way distorted results, I have performed the same analysis but this time from 2009 Q1 to 2016 Q2. As mentioned previously, this also coincides with a substantial decrease of interest rates. For this correlation analysis I shall omit GLTDFq as I do not expect it to give any relevant results. Initially, there are no substantial differences for mean values across countries when comparing the two datasets (Table 9).

Table 6 shows data for descriptive statistics (mean values). In order to put these data into perspective, a comparison to the whole dataset (2006 Q2 to 2016 Q2) must be performed. On the same table, side by side comparison of funding structures shows that there are no significant changes in funding structures due to decreasing interest rates. Only L2 (loans to
non-Monetary Union) have seen on average a slight increase (around 0.6 percentage points), L4 (loans to domestic non-MFIs) have decreased by about the same amount. Deposits from Euro area non-MFIs have seen an increase by little more than one percentage point.

When comparing funding structures of countries in the sample individually, all have managed to decrease LTD ratio, as previously mentioned, except for CY, EL and MT whose ratios increased. One thing to note is that Latvia (LV) has the same data due to its late inclusion into the Euro area - its data is available from 2010 Q3.

Concerning data from 2009 Q1 (Table 5 - descriptive statistic comparison) I shall again step through the variables. In the case of L1 - the ratio remained roughly similar (the average value was $44.70 \%$ ). The largest increase was in SK, with a nearly 2.5 percentage point increase. Concerning L2 the majority of countries have decreased their exposures to MFIs except for EE, IE, LT, PT and MT. Regarding the L4 ratio, everything remained roughly the same, only FI, FR and SI have seen increases to loans to the non-monetary union (other EU countries). MT, IE and LU, with SI at the bottom of the list, had the largest share of loans to category L2 (the average value was $3.75 \%$ ).

In the case of L3 (with an average of $1.17 \%$ ) percentage shares differ slightly, with MT at the top and LU, IE, FI and BE following closely, with almost half of the sample countries with loans to non-EMU non-MFIs below $1 \%$. In loans to domestic MFIs (L4), the largest share was held by FR, followed by LU, AT, DE, IE and FI. For L4 the average share was $6.44 \%$ but the differences were the largest in that perspective. Finally the loans to domestic non-MFIs (L5), were in large part similar with an average share of $42.33 \%$. All of the countries included had a share of L5 that was larger than $30 \%$, except LU , where the share of domestic loans to non-MFIs was below $20 \%$.

All together most engaged in loaning to MFIs (Table 11 and Table 12) were LU, IE and FR and oppositely, most loans to non-MFIs were represented in cases of SK, SI, PT, EL, LT, ES, CY and EE. Also in loans to the Euro area and domestic loans, countries had a similar loan structure (in relation to total loans), on the other hand the countries that lent the most according to share of non-monetary union lending were MT, IE, LU, FI and BE.

Continuing to funding share, the results on Table 6 show the largest differences in shares of deposit funding among countries. For D1 (deposits from the Euro area MFIs) LU again had the largest share of funding (33\%) followed by IE, FR, CY, MT, AT and EL. The average funding share of D1 was $15.75 \%$ with same countries again topping the list as compared to the whole dataset (IE, LU, FR, CY). In the case of D2, the funding ratios were roughly equal with an average of $34.6 \%$ across countries. As far as non-EMU funding is concerned, there were some changes, FI and MT slightly increased funding from D3 (non-EMU non-MFIs) while the majority of other countries have decreased exposures, as decreasing rates are unappealing to depositors. In cases of domestic loans there were no surprising changes, with
funding structure ratio remaining roughly the same.

Table 5. Comparison of descriptive statistics means

|  | 2006Q2-2016Q2 | 2009Q1-2016Q2 |
| :--- | :---: | :---: |
| L1 | 44.30 | 44.70 |
| L2 | 4.34 | 3.75 |
| L3 | 1.04 | 1.12 |
| L4 | 7.09 | 6.44 |
| L5 | 42.23 | 42.33 |
| Loans to MFIs | 11.79 | 11.08 |
| Loans to non-MFIs | 88.21 | 88.92 |
| L_E_area_Total | 44.36 | 44.71 |
| L_Non_EMU_Total | 5.59 | 5.17 |
| L_Domestic_Total | 49.94 | 49.30 |
| D1 | 15.31 | 15.75 |
| D2 | 35.65 | 34.61 |
| D3 | 3.64 | 3.18 |
| D4 | 1.17 | 1.02 |
| D5 | 7.71 | 7.87 |
| D6 | 33.21 | 33.53 |
| Deposits from MFIs | 29.83 | 31.25 |
| Deposits from non-MFIs | 70.17 | 68.75 |
| D_E_area_Total | 50.91 | 50.65 |
| D_Non_EMU_Total | 5.25 | 4.83 |
| D_Domestic_Total | 40.90 | 41.66 |
| LTD | 1.38 | 1.36 |
| GLTDFq | 0.63 | 0.47 |

Source: Own calculation
Since there were no significant changes of funding structures I expect correlation data to remain the same. I have performed a correlation of EURIBOR 3 M with funding structures. From the data on Table 11 some changes of correlative direction can be seen, but there are also changes of correlative strength. There are also more insignificant data, so dividing data into a second sample, ranging from 2009 Q1 onwards, did not have any relevant effects. I will mention only countries which have changes of correlative direction but not correlation strength. The first such case is BE where in the case of L4 (loans to domestic MFIs) the correlation changed from -0.370 to 0.364 , meaning that decreased interest rate rendered decreases of loans. Yet again CY and EL show negative correlations of EURIBOR 3M with LTD ratio. In the case of CY correlations for D4 changed from 0.666 to -0.600 and for D6 correlation changed from 0.354 to -0.621 meaning that increased interest rates would lead to a decreased share of non-MFIs funding from the non-Euro area and from domestic customers. In case of DE, correlation for D4 changes the opposite way, from 0.615 to -0.380 . In the case of ES there were again a lot of insignificant correlations but the same also happened for other countries such as LU, NL and PT.

As previously, I shall again calculate the means of statistically significant correlation
coefficients in order to provide an idea of the relationship between interest rates and LTD ratio and funding structure ratios. This time the correlation means of interest rates with LTD ratio give the following results: ECB_IR_D correlation coefficient is 0.774, for ECB_IR_L it is 0.859 and for EURIBBOR 3 M it is 0.762 . The direction of relationship remained the same as before, and there were only slight changes of correlation strength. Again it can be said that decreasing interest rate will lead to decreased LTD ratios. I have done the same for the correlation of EURIBOR 3M with funding structures, and this time the generalized approximations of correlations are: for loan ratio L1 (-0.474), L2 (0.170), L3 (0.276), L4 ($0.128)$, L5 ( -0.069 ), and the deposits structure results are: D1 (0.657), D2 (-0.741), D3 $(0.732)$, D4 ( -0.180 ) D5(-0.136) and for D6 ( -0.737 ). If comparing these values to the ones calculated previously, for data ranging from 2006 onwards some similarities can be observed. Namely for ratios L1, L3, D1, D2, D3 and D6 the correlation strengths changed a bit or remained the same, this also holds true for correlative direction. One problem with this sort of generalization is that many correlations are statistically insignificant.

Under the line, both IR on deposits and loans do affect bank funding and loan structures, though in varying degrees, which consequently impacts on LTD ratio. In order to determine how exactly IR impacts banking business one would have to bring into consideration the effect on bank size, individual funding and the loan activities of banks from different Euro area countries, and probably also the most deterministic variable would be exact interest margins. As noted before on p.13, referring to the ECB (2015) report, the reasons for such differing results are the size and fragmentation of certain markets and consequent market concentration.

The EBA risk report (2016) and ESRB risk dashboard (2016) provide a few important facts. One of the most problematic things that EU banking still faces are NPLs. This is also true for Ireland and Italy, where in nearly one third of EU jurisdictions the share of NPLs is larger than $10 \%$. Since the financial crisis NPL ratio has improved to $5.4 \%$ in the second half of 2016 from $6.5 \%$ at the end of 2014. There are still substantial differences in asset quality across countries. Elevated NPLs are directly correlated with low profitability and inefficient capital allocation in the general economy. Another problem is that of non-stimulative IR on deposits, for which data show flatness of deposits during the first three quarters of 2016. An additional and major problem is public debt, which is highest in Greece, Italy, Cyprus and Ireland.

The most prominent effect was on Euro area loans and deposits, which comes as no surprise since entities doing business in the Euro area are the most affected by changes of interest rate. By looking at the data one can observe that the majority of business activities are to serve non-MFI entities. One possibility of mitigating the risks created by decreasing IR rates is for banks to do business across borders, outside of the EU, which would bring many other risks. One problem, as previously mentioned, is the high concentration of banking. There are problems of regulation and the important idea of central banks making changes in the
technologies used, as well as the business models that accompany these new technologies. I have observed a few problems regarding my analysis. First is the problem of aggregated data. In order to examine the specific effects of interest rate on changes to loan-funding mix only banks that would fall into the same business models should be analysed. Because of the relative share of different countries and unequally developed financial sectors, comparison is difficult. In order to derive exact and relevant conclusions the balance sheets of individual banks should be used for analyses, eneabling determination of the behavioural reactions of banks to low or negative interest rates. Also with regard to data from aggregated balance sheets, it is difficult to make reliable conclusions because of the multicolinearity of variables (funding structure ratios, LTD ratio and interest rates) that were included.

### 5.2.3 Summary of results

The answer to the first research question is that any increase or decrease of interest rate does not show similar correlations of IRs to funding structures. If I interpret the results through the framework of QE and decreasing interest rates, then it can be said that loans to the Euro area non-MFIs (L1), loans to domestic MFIs (L4) and non-MFIs (L5) tend to increase with decreasing interest rates. If looking at the liability side of balance sheet ratios, correlations show strange data in cases of deposits from non-MFIs in the Euro area, non-Euro area and domestic ones (D2, D4, D6). In an environment of decreasing interest rates the ratios of nonMFIs deposits seem to decrease. The opposite is true for deposits from MFIs from the Euro area, non-Euro area and domestic (D1, D3, D5) - decreasing interest rates seem to lead to increases in MFIs deposits.

The answer to the second research question would therefore be that interest rate levels, as determined by the ECB strongly correlate with LTD ratio. The relationship is linear, meaning that any increase (decrease) in interest rate would lead to increase (decrease) of LTD ratio. Therefore, generally speaking, the QE monetary policy has a beneficial effect on a bank's LTD ratio.

In his speech Coeuré (2013) acknowledges that the current monetary policy of quantitative easing has mostly benefited borrowers of funds at a cost to savers and lenders of funds. Despite the QE policy and asset purchase programs interest rates have become heterogeneous across countries and sectors, and all EU countries have not benefited equally from the decline of IRs. The results of financial fragmentation are the renationalization of savings, that prevent Euro area households and companies from enjoying the full benefits of the single market for goods and services.

Table 6. Loan and funding structure 2009 Q1 to 2016 Q2

|  | AT | BE | CY | DE | EE | EL | ES | FI | FR | IE | MEAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 39.99 | 44.11 | 45.53 | 40.05 | 45.11 | 46.67 | 46.40 | 39.17 | 36.06 | 35.16 | 44.70 |
| L2 | 3.34 | 6.87 | 2.88 | 3.75 | 5.77 | 4.91 | 1.43 | 8.33 | 3.02 | 16.16 | 3.75 |
| L3 | 3.07 | 3.47 | 2.30 | 1.12 | 0.39 | 0.24 | 0.41 | 3.54 | 1.23 | 3.83 | 1.12 |
| L4 | 18.08 | 6.44 | 6.80 | 17.55 | 4.04 | 1.93 | 6.06 | 11.23 | 25.21 | 13.47 | 6.44 |
| L5 | 35.52 | 39.10 | 42.49 | 37.52 | 44.68 | 46.25 | 45.70 | 37.74 | 34.48 | 31.38 | 42.33 |
| Loans to MFIs | 21.50 | 13.26 | 9.68 | 21.33 | 9.84 | 6.89 | 7.53 | 19.63 | 28.22 | 29.80 | 11.08 |
| Loans to non-MFIs | 78.50 | 86.74 | 90.32 | 78.67 | 90.16 | 93.11 | 92.47 | 80.37 | 71.78 | 70.20 | 88.92 |
| L_E_area_Total | 39.96 | 44.14 | 45.54 | 40.04 | 45.11 | 46.64 | 46.38 | 39.07 | 36.05 | 35.20 | 44.71 |
| L_Non_EMU_Total | 6.42 | 10.35 | 5.16 | 4.87 | 6.09 | 5.17 | 1.88 | 11.81 | 4.25 | 19.46 | 5.17 |
| L_Domestic_Total | 53.63 | 45.52 | 49.30 | 55.08 | 48.80 | 48.19 | 51.74 | 49.12 | 59.70 | 45.34 | 49.30 |
| D1 | 20.15 | 11.54 | 21.38 | 15.75 | 7.84 | 18.37 | 12.50 | 8.45 | 24.78 | 27.01 | 15.75 |
| D2 | 32.14 | 42.09 | 34.34 | 34.45 | 41.10 | 29.36 | 38.58 | 34.61 | 25.29 | 23.86 | 34.61 |
| D3 | 1.27 | 3.24 | 1.03 | 2.48 | 9.89 | 2.82 | 2.39 | 15.34 | 4.00 | 9.50 | 3.18 |
| D4 | 0.48 | 3.23 | 1.38 | 0.63 | 1.36 | 5.36 | 0.46 | 2.66 | 0.86 | 2.34 | 1.02 |
| D5 | 16.62 | 4.67 | 10.17 | 13.16 | 0.38 | 14.97 | 8.64 | 6.97 | 21.65 | 17.16 | 7.87 |
| D6 | 29.34 | 35.24 | 31.70 | 33.53 | 39.44 | 29.12 | 37.43 | 31.97 | 23.43 | 20.13 | 33.53 |
| Deposits from MFIs | 38.26 | 19.48 | 33.92 | 31.40 | 17.61 | 36.03 | 23.65 | 31.25 | 50.32 | 57.52 | 31.25 |
| Deposits from non-MFIs | 61.74 | 80.52 | 66.08 | 68.60 | 82.39 | 63.97 | 76.35 | 68.75 | 49.68 | 42.48 | 68.75 |
| D_E_area_Total | 52.29 | 53.63 | 56.63 | 50.20 | 48.93 | 47.81 | 51.04 | 42.88 | 50.07 | 50.65 | 50.65 |
| D_Non_EMU_Total | 1.75 | 6.47 | 2.48 | 3.11 | 11.03 | 8.24 | 2.93 | 18.60 | 4.83 | 12.41 | 4.83 |
| D_Domestic_Total | 45.96 | 39.91 | 40.89 | 46.69 | 40.04 | 43.95 | 46.03 | 38.52 | 45.10 | 36.94 | 41.66 |
| LTD gap [mio $€$ ] | 292268.8 | -212640.4 | 34496.7 | 1115593.6 | 11590.3 | 93512.9 | 507190.0 | 230383.6 | 2668432.0 | 378116.7 | 1 |
| LTD | 1.47 | 0.78 | 1.44 | 1.18 | 1.58 | 1.26 | 1.15 | 1.85 | 1.72 | 1.89 | 1.36 |
| GLTDFq | -0.14 | 0.69 | 2.46 | -0.09 | 0.80 | 1.17 | 1.45 | -0.95 | 0.47 | 7.13 | 0.47 |

[^9]Table 6. Loan and funding structure 2009 Q1 to 2016 Q2 (con.)

|  | IT | LT | LU | LV | MT | NL | PT | SI | SK | MEAN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | 44.70 | 46.46 | 39.62 | 43.91 | 39.62 | 46.01 | 47.16 | 46.58 | 47.94 | 44.70 |
| L2 | 1.15 | 3.67 | 14.75 | 4.58 | 17.75 | 5.77 | 2.45 | 0.22 | 2.39 | 3.75 |
| L3 | 0.18 | 0.15 | 4.58 | 0.95 | 5.08 | 1.82 | 0.20 | 0.78 | 0.76 | 1.12 |
| L4 | 9.95 | 3.50 | 21.79 | 8.22 | 4.73 | 4.48 | 4.03 | 6.19 | 2.08 | 6.44 |
| L5 | 44.01 | 46.21 | 19.27 | 42.33 | 32.81 | 41.92 | 46.16 | 46.22 | 46.83 | 42.33 |
| Loans to MFIs | 11.08 | 7.13 | 36.83 | 12.62 | 22.68 | 10.25 | 6.52 | 6.39 | 4.46 | 11.08 |
| Loans to non-MFIs | 88.92 | 92.87 | 63.17 | 87.38 | 77.32 | 89.75 | 93.48 | 93.61 | 95.54 | 88.92 |
| L_E_area_Total | 44.71 | 46.48 | 39.47 | 43.99 | 39.55 | 46.02 | 47.16 | 46.64 | 47.95 | 44.71 |
| L_Non_EMU_Total | 1.34 | 3.80 | 19.29 | 5.45 | 22.91 | 7.56 | 2.66 | 0.91 | 3.23 | 5.17 |
| L_Domestic_Total | 53.95 | 49.72 | 41.24 | 50.56 | 37.54 | 46.42 | 50.18 | 52.46 | 48.82 | 49.30 |
| D1 | 17.46 | 7.18 | 32.05 | 8.95 | 21.01 | 7.43 | 14.13 | 17.36 | 3.82 | 15.75 |
| D2 | 33.94 | 41.25 | 32.80 | 39.31 | 31.40 | 42.92 | 37.33 | 37.72 | 46.54 | 34.61 |
| D3 | 1.95 | 9.79 | 3.05 | 8.30 | 15.12 | 6.50 | 3.18 | 0.86 | 0.98 | 3.18 |
| D4 | 0.28 | 0.31 | 1.02 | 6.35 | 1.52 | 2.03 | 0.16 | 0.13 | 0.70 | 1.02 |
| D5 | 12.95 | 0.61 | 7.87 | 1.41 | 2.18 | 1.72 | 8.87 | 6.88 | 2.03 | 7.87 |
| D6 | 33.41 | 40.86 | 23.22 | 35.68 | 28.77 | 39.40 | 36.32 | 37.05 | 45.92 | 33.53 |
| Deposits from MFIs | 32.21 | 17.25 | 43.04 | 18.53 | 37.75 | 15.58 | 26.49 | 25.75 | 6.67 | 31.25 |
| Deposits from non-MFIs | 67.79 | 82.75 | 56.96 | 81.47 | 62.25 | 84.42 | 73.51 | 74.25 | 93.33 | 68.75 |
| D_E_area_Total | 51.39 | 48.46 | 64.80 | 48.21 | 51.91 | 50.39 | 51.40 | 55.22 | 50.34 | 50.65 |
| D_Non_EMU_Total | 2.19 | 9.88 | 4.04 | 14.65 | 17.18 | 8.49 | 3.40 | 1.04 | 1.70 | 4.83 |
| D_Domestic_Total | 46.42 | 41.66 | 31.16 | 37.14 | 30.91 | 41.12 | 45.20 | 43.74 | 47.96 | 41.66 |
| LTD gap [mio €] | 1404313.5 | 10826.9 | -51658.5 | 11844.2 | 1608.9 | 636216.6 | 114580.0 | 15357.5 | -5134.3 | / |
| LTD | 1.49 | 1.43 | 0.89 | 1.57 | 1.12 | 1.36 | 1.26 | 1.33 | 0.94 | 1.36 |
| GLTDFq | -1.80 | 0.43 | 0.35 | 0.64 | 0.00 | 3.47 | 0.33 | -0.39 | 1.36 | 0.47 |

Source: Own calculation

Table 7. LD correlation matrix 2006 Q2 to 2016 Q2

|  |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | GLTDFq | ECB_IR_D | ECB_IR_L | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AT | Pearson Correlation | -.922** | . $621^{* *}$ | -. 188 | . $728{ }^{* *}$ | -.783** | . $962^{* *}$ | -.958** | . $529^{* *}$ | -.675** | .886** | -.958** | -. 030 | . $542 *$ | . $658 *$ | . 613 ** |
|  | Sig. (2-tailed) | . 000 | . 000 | . 238 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 852 | . 000 | . 000 | . 000 |
| BE | Pearson Correlation | -.788** | . $905^{* *}$ | . $881^{* *}$ | -.420** | -.766** | . $883{ }^{\text {"** }}$ | -.882** | . $926{ }^{* *}$ | . $435{ }^{\text {*** }}$ | . $475 * *$ | -.850** | . 060 | . $930{ }^{* *}$ | . $921^{* *}$ | . 925 ** |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 006 | . 000 | . 000 | . 000 | . 000 | . 004 | . 002 | . 000 | . 713 | . 000 | . 000 | . 000 |
| CY | Pearson Correlation | . $707^{* *}$ | -.893** | -. 153 | . 020 | . $595{ }^{* *}$ | -. $414{ }^{* *}$ | . 180 | -.718** | -. 221 | . $847^{* *}$ | . 128 | -. 083 | -. $658{ }^{* *}$ | -. $784^{* *}$ | -. $704{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 339 | . 901 | . 000 | . 007 | . 259 | . 000 | . 166 | . 000 | . 427 | . 610 | . 000 | . 000 | . 000 |
| DE | Pearson Correlation | -.839** | . $963{ }^{* * *}$ | . $784^{* *}$ | -. 161 | $-.626^{* *}$ | . $964 *$ | $-.970^{* *}$ | . $558{ }^{* *}$ | . $692 *$ | . $935 *$ | -.971*** | -. 022 | . $881^{* *}$ | . $935{ }^{* *}$ | . $883{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 314 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 891 | . 000 | . 000 | . 000 |
| EE | Pearson Correlation | . $666{ }^{\text {*** }}$ | -.419** | . $633^{* *}$ | -. 020 | . $726{ }^{* *}$ | . $558{ }^{* *}$ | $-.989{ }^{\text {** }}$ | . $940{ }^{0 *}$ | -.890** | . 056 | -.987** | -. 283 | . $742^{* *}$ | . $845^{* *}$ | . $803{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 014 | . 000 | . 910 | . 000 | . 001 | . 000 | . 000 | . 000 | . 753 | . 000 | . 111 | . 000 | . 000 | . 000 |
| EL | Pearson Correlation | .896** | $-.807^{* *}$ | $-.764^{* *}$ | $-.893^{* *}$ | . $880{ }^{* *}$ | . $782^{* *}$ | -.863** | ${ }^{-.817^{* *}}$ | -. 015 | . $902{ }^{* *}$ | -.863*** | . 071 | -. $647^{* *}$ | $-.700^{* *}$ | -. $676^{\text {TK}}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 926 | . 000 | . 000 | . 665 | . 000 | . 000 | . 000 |
| ES | Pearson Correlation | -.617** | . $526^{* *}$ | . $364{ }^{*}$ | . 253 | -.468** | . 044 | -. 227 | . $786{ }^{* *}$ | . 061 | -. 151 | -. 142 | -. 133 | . $782^{* *}$ | . $877^{* *}$ | . $781{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 019 | . 110 | . 002 | . 785 | . 153 | . 000 | . 706 | . 347 | . 375 | . 413 | . 000 | . 000 | . 000 |
| FI | Pearson Correlation | -.777*** | . 074 | -. 139 | . $636{ }^{* *}$ | -.559** | . 128 | -.312* | . 168 | . 051 | . 036 | -. 070 | . 030 | . 078 | . 194 | . 078 |
|  | Sig. (2-tailed) | . 000 | . 645 | . 385 | . 000 | . 000 | . 423 | . 047 | . 295 | . 752 | . 824 | . 664 | . 853 | . 626 | . 223 | . 630 |
| FR | Pearson Correlation | . $355^{*}$ | . $775^{* *}$ | -.861** | -.460 ${ }^{2 *}$ | . 046 | . $845^{* *}$ | -.875** | . $901{ }^{* *}$ | -.885** | . $313{ }^{*}$ | -.875*** | . $330{ }^{*}$ | . $822^{* *}$ | . $878{ }^{* *}$ | . $858{ }^{* *}$ |
|  | Sig. (2-tailed) | . 023 | . 000 | . 000 | . 002 | . 775 | . 000 | . 000 | . 000 | . 000 | . 046 | . 000 | . 038 | . 000 | . 000 | . 000 |
| IE | Pearson Correlation | . $330^{*}$ | -.769** | -.648** | . $677^{* *}$ | -. 038 | . $923{ }^{* *}$ | -.968** | . $751{ }^{* *}$ | . 244 | . $717{ }^{* *}$ | -. $969^{* *}$ | . 076 | . $630^{* *}$ | .741** | .700** |
|  | Sig. (2-tailed) | . 035 | . 000 | . 000 | . 000 | . 812 | . 000 | . 000 | . 000 | . 124 | . 000 | . 000 | . 643 | . 000 | . 000 | . 000 |
| IT | Pearson Correlation | -.848** | -. 001 | . 225 | . $824{ }^{* *}$ | -.868** | . $963{ }^{\text {** }}$ | $-.939^{\text {** }}$ | . $968{ }^{\text {** }}$ | -.323* | . $690{ }^{\text {** }}$ | $-.944^{\text {TH }}$ | . 266 | . $852^{* *}$ | . $912^{* *}$ | . $874{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 996 | . 157 | . 000 | . 000 | . 000 | . 000 | . 000 | . 039 | . 000 | . 000 | . 098 | . 000 | . 000 | . 000 |
| LT | Pearson Correlation | . $698{ }^{\text {*** }}$ | -. 248 | . $595^{* *}$ | $-.509^{* *}$ | . $677^{* *}$ | . $886{ }^{* *}$ | -.972** | . $980{ }^{* *}$ | . 206 | -. $315^{*}$ | $-.973^{* *}$ | -. 226 | . $540{ }^{* *}$ | . $627^{* *}$ | . $632{ }^{\text {2*}}$ |
|  | Sig. (2-tailed) | . 000 | . 118 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 | . 196 | . 045 | . 000 | . 161 | . 000 | . 000 | . 000 |
| LU | Pearson Correlation | -.493** | -. 179 | -. 229 | . $607^{* *}$ | -. $433{ }^{* *}$ | . $863{ }^{\text {+4*}}$ | -. $742^{* *}$ | . 200 | -.476** | . $607{ }^{* *}$ | -.747** | . 059 | . 257 | . $375^{*}$ | . $378{ }^{*}$ |
|  | Sig. (2-tailed) | . 001 | . 264 | . 149 | . 000 | . 005 | . 000 | . 000 | . 211 | . 002 | . 000 | . 000 | . 719 | . 105 | . 016 | . 015 |
| LV | Pearson Correlation | . 826 ** | -.439** | . 069 | -.497* | . $833{ }^{* *}$ | . $925{ }^{* * *}$ | -.975** | . $929{ }^{* *}$ | -.929** | . 259 | -.966** | . 113 | . $869^{* *}$ | . $958{ }^{* *}$ | . $878{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 032 | . 750 | . 014 | . 000 | . 000 | . 000 | . 000 | . 000 | . 221 | . 000 | . 607 | . 000 | . 000 | . 000 |
| MT | Pearson Correlation | -.519** | . $504{ }^{* *}$ | . $462^{* *}$ | $-.466^{* *}$ | -.707** | . $653^{* *}$ | -. $742^{* *}$ | -.345* | -.348* | . $783{ }^{* *}$ | -.521** | -. 021 | . 104 | . 259 | . 182 |
|  | Sig. (2-tailed) | . 001 | . 001 | . 002 | . 002 | . 000 | . 000 | . 000 | . 027 | . 026 | . 000 | . 000 | . 899 | . 519 | . 102 | . 254 |
| NL | Pearson Correlation | -.899** | . $826{ }^{* * *}$ | $-.603^{* *}$ | -. 241 | -. $438{ }^{* *}$ | . $771{ }^{* *}$ | -.783*** | . 740 ** | -. 023 | . $517{ }^{* *}$ | -.792** | . 032 | . $797{ }^{* *}$ | . $871{ }^{\text {*** }}$ | . 755 ** |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 130 | . 004 | . 000 | . 000 | . 000 | . 886 | . 001 | . 000 | . 847 | . 000 | . 000 | . 000 |
| PT | Pearson Correlation | . 301 | -.349** | -. 269 | . 298 | -. 175 | . $857{ }^{\text {"** }}$ | . 043 | . $626{ }^{* *}$ | -. 062 | -. $575{ }^{* * *}$ | -. $448^{* *}$ | . 361 * | . $814^{* *}$ | . $890{ }^{* *}$ | . 825 ** |
|  | Sig. (2-tailed) | . 056 | . 025 | . 089 | . 058 | . 274 | . 000 | . 789 | . 000 | . 702 | . 000 | . 003 | . 022 | . 000 | . 000 | . 000 |
| SI | Pearson Correlation | . $626^{* *}$ | $-.574^{* *}$ | -.755** | -.363* | . $618^{* *}$ | . 920 ** | -.968** | . $562{ }^{2 *}$ | -.734** | . $339{ }^{*}$ | $-.970^{* *}$ | . 207 | . $349{ }^{*}$ | . $473{ }^{* *}$ | . $422^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 020 | . 000 | . 000 | . 000 | . 000 | . 000 | . 030 | . 000 | . 200 | . 026 | . 002 | . 006 |
| SK | Pearson Correlation | -. 304 | -. 146 | . 054 | . 307 | -.333* | . $381^{*}$ | -. 283 | . 272 | . 063 | -. 217 | -. 299 | -. 074 | . 420 ** | . $310{ }^{*}$ | . 420 ** |
|  | Sig. (2-tailed) | . 053 | . 361 | . 737 | . 051 | . 034 | . 014 | . 073 | . 085 | . 694 | . 173 | . 057 | . 652 | . 006 | 049 | . 006 |

Source: Own calculation

Table 8. EURIBOR 3M correlation matrix 2006 Q2 to 2016 Q2

|  |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AT | Pearson Correlation | $-.547^{* *}$ | . 923 ** | -. 264 | . 096 | -. 239 | . 583 ** | -. $523{ }^{* *}$ | . $761{ }^{* *}$ | -. $463{ }^{* *}$ | . $310^{*}$ | -. $488{ }^{* *}$ | . 613 ** | . 266 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 095 | . 549 | . 132 | . 000 | . 000 | . 000 | . 002 | . 048 | . 001 | . 000 | . 097 |
| BE | Pearson Correlation | $-.760^{* *}$ | . 825 ** | . 860 ** | -.370** | $-.726^{\text {TK}}$ | . $910{ }^{\text {z* }}$ | $-.903^{* *}$ | . $885{ }^{\text {*** }}$ | . $474{ }^{* *}$ | . $527^{* *}$ | -. $872^{* *}$ | . 925 ** | . 027 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 017 | . 000 | . 000 | . 000 | . 000 | . 002 | . 000 | . 000 | . 000 | . 867 |
| CY | Pearson Correlation | $-.742^{* *}$ | . $834{ }^{* *}$ | . 075 | . 021 | -.456** | -. 066 | . 208 | . $707^{* *}$ | . $666{ }^{* *}$ | -.803** | . $354{ }^{*}$ | -. $7044^{* *}$ | . 060 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 643 | . 898 | . 003 | . 680 | . 191 | . 000 | . 000 | . 000 | . 023 | . 000 | . 715 |
| DE | Pearson Correlation | -.826** | . $942{ }^{* *}$ | . $847^{* *}$ | -. 128 | -. $673^{* *}$ | . 906 ** | $-.896 * *$ | . $448{ }^{* *}$ | . $615{ }^{* *}$ | . $874{ }^{* *}$ | $-.903{ }^{* *}$ | . 883 ** | . 046 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 425 | . 000 | . 000 | . 000 | . 003 | . 000 | . 000 | . 000 | . 000 | . 776 |
| EE | Pearson Correlation | . $424{ }^{*}$ | -. 197 | . $389{ }^{*}$ | -. 092 | . $458{ }^{\text {"* }}$ | . 381 * | -. $757{ }^{* *}$ | . $730{ }^{* *}$ | -.680** | . 213 | $-.755^{* *}$ | . $803^{* *}$ | -. 076 |
|  | Sig. (2-tailed) | . 012 | . 265 | . 023 | . 604 | . 006 | . 026 | . 000 | . 000 | . 000 | . 226 | . 000 | . 000 | . 674 |
| EL | Pearson Correlation | $-.705^{* *}$ | . $647^{* *}$ | . $453{ }^{* *}$ | . $680{ }^{* *}$ | -.663** | -. $748^{* *}$ | . $745^{* *}$ | . $732{ }^{* *}$ | . $380{ }^{*}$ | -.782** | . $745^{* *}$ | -.676** | -. 021 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 003 | . 000 | . 000 | . 000 | . 000 | . 000 | . 014 | . 000 | . 000 | . 000 | . 898 |
| ES | Pearson Correlation | -. 243 | . 200 | . 246 | . 006 | -. 069 | -.314* | . 220 | . $626{ }^{\text {*** }}$ | . 040 | -. $496{ }^{* *}$ | . 286 | . 781 ** | -. 049 |
|  | Sig. (2-tailed) | . 126 | . 210 | . 121 | . 968 | . 669 | . 046 | . 168 | . 000 | . 805 | . 001 | . 070 | . 000 | . 763 |
| FI | Pearson Correlation | . 302 | . $729^{* *}$ | -.694** | -.566 ${ }^{\text {TF }}$ | . $582{ }^{\text {"** }}$ | . $364 *$ | . $743^{* *}$ | $-.825^{* *}$ | -. $632^{\text {** }}$ | . 127 | .792** | . 078 | . 205 |
|  | Sig. (2-tailed) | . 055 | . 000 | . 000 | . 000 | . 000 | . 019 | . 000 | . 000 | . 000 | . 430 | . 000 | . 630 | . 204 |
| FR | Pearson Correlation | . $457{ }^{* *}$ | . $829^{* *}$ | $-.759^{* *}$ | -.669** | . $313{ }^{*}$ | . $616^{\text {²*}}$ | -. $648^{* *}$ | . $912{ }^{\text {*** }}$ | $-.782^{* *}$ | -. 060 | $-.619^{* *}$ | .858** | . $352^{*}$ |
|  | Sig. (2-tailed) | . 003 | . 000 | . 000 | . 000 | . 046 | . 000 | . 000 | . 000 | . 000 | . 707 | . 000 | . 000 | . 026 |
| IE | Pearson Correlation | . $568{ }^{* *}$ | -.704** | -.631*** | . 288 | . 361 * | . $411^{* *}$ | -.534** | . $837{ }^{* *}$ | . $611^{* *}$ | . 114 | $-.536^{* *}$ | . $700{ }^{* *}$ | -. 021 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 068 | . 020 | . 008 | . 000 | . 000 | . 000 | . 477 | . 000 | . 000 | . 900 |
| IT | Pearson Correlation | $-.702^{\text {2F }}$ | . 078 | . 306 | . $665^{* *}$ | -.711** | . $857^{\text {tw }}$ | -. $804{ }^{* *}$ | . $8700^{\text {ax }}$ | -. $399{ }^{\text {** }}$ | . $506^{\text {7\% }}$ | $-.806^{\text {Tr }}$ | . $874{ }^{\text {N* }}$ | . 213 |
|  | Sig. (2-tailed) | . 000 | . 628 | . 052 | . 000 | . 000 | . 000 | . 000 | . 000 | . 010 | . 001 | . 000 | . 000 | . 187 |
| LT | Pearson Correlation | . $656{ }^{* *}$ | -. $584{ }^{* *}$ | . 541 ** | -. 208 | . $704{ }^{* *}$ | . $671{ }^{* *}$ | $-.736^{* *}$ | . $692^{* *}$ | . $605{ }^{\text {** }}$ | . 082 | -. 731 ** | . $632^{* *}$ | -. 102 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 192 | . 000 | . 000 | . 000 | . 000 | . 000 | . 612 | . 000 | . 000 | . 531 |
| LU | Pearson Correlation | $-.702^{* *}$ | . 158 | . $402^{2 *}$ | . $693{ }^{\text {** }}$ | -.776** | . $621^{* *}$ | -. $828{ }^{* *}$ | . 085 | . 264 | . $868{ }^{* * *}$ | $-.782^{* *}$ | . $378^{*}$ | -. 144 |
|  | Sig. (2-tailed) | . 000 | . 325 | . 009 | . 000 | . 000 | . 000 | . 000 | . 598 | . 095 | . 000 | . 000 | . 015 | . 377 |
| LV | Pearson Correlation | . $828{ }^{* *}$ | -. 291 | . 090 | -.589** | . $845^{* *}$ | . $792^{* *}$ | $-.860^{* *}$ | . $816^{* *}$ | -. $827^{* *}$ | . 327 | $-.817^{* *}$ | . $878{ }^{* *}$ | . 216 |
|  | Sig. (2-tailed) | . 000 | . 168 | . 674 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 | . 119 | . 000 | . 000 | . 322 |
| MT | Pearson Correlation | . $486{ }^{* *}$ | -. $582{ }^{\text {** }}$ | . $638^{* *}$ | -. 167 | . 207 | . $738{ }^{* *}$ | -. $464{ }^{* *}$ | -.438** | -. $553{ }^{* *}$ | -. 211 | -. 199 | . 182 | . 111 |
|  | Sig. (2-tailed) | . 001 | . 000 | . 000 | . 296 | . 194 | . 000 | . 002 | . 004 | . 000 | . 185 | . 212 | . 254 | . 497 |
| NL | Pearson Correlation | -.794** | . $902{ }^{* *}$ | -. $516{ }^{* *}$ | -. 440 ** | -.491** | . $922{ }^{\text {*** }}$ | -. $884^{* *}$ | . $746{ }^{* *}$ | . 094 | . $650{ }^{* *}$ | -.905** | .755** | -. 071 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 001 | . 004 | . 001 | . 000 | . 000 | . 000 | . 558 | . 000 | . 000 | . 000 | . 665 |
| PT | Pearson Correlation | . 352 * | $-.492{ }^{* *}$ | . 002 | . 188 | . 102 | . $643^{* *}$ | . 283 | . $359^{*}$ | . 148 | -.698** | -. 170 | . $825^{* *}$ | . 108 |
|  | Sig. (2-tailed) | . 024 | . 001 | . 991 | . 239 | . 524 | . 000 | . 073 | . 021 | . 355 | . 000 | . 289 | . 000 | . 505 |
| SI | Pearson Correlation | . $811^{* *}$ | . 170 | -. $563{ }^{* *}$ | -.768** | . $826{ }^{* *}$ | . $683^{* *}$ | $-.517^{* *}$ | . $923{ }^{\text {*** }}$ | -. $448{ }^{* *}$ | -. 579 ** | -. $487^{* *}$ | . $422^{* *}$ | . 271 |
|  | Sig. (2-tailed) | . 000 | . 288 | . 000 | . 000 | . 000 | . 000 | . 001 | . 000 | . 003 | . 000 | . 001 | . 006 | . 091 |
| SK | Pearson Correlation | $-.885^{* *}$ | $-.782^{* *}$ | $-.487^{* *}$ | . $905^{* *}$ | $-.879^{* *}$ | . $915^{* *}$ | $-.869^{* *}$ | . $839^{* *}$ | -.665** | . 296 | $-.868^{* *}$ | . 420 ** | -. 064 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 061 | . 000 | . 006 | . 694 |

Source: Own calculation

Table 9. Funding structures comparison

|  |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD gap | LTD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AT | 2009Q1-2016Q2 | 39.99 | 3.34 | 3.07 | 18.08 | 35.52 | 20.15 | 32.14 | 1.27 | 0.48 | 16.62 | 29.34 | 292268.8 | 1.47 |
|  | 2006Q2-2016Q2 | 39.73 | 3.91 | 3.00 | 17.78 | 35.57 | 20.73 | 31.69 | 1.44 | 0.46 | 16.70 | 28.98 | 294010.5 | 1.50 |
| BE | 2009Q1-2016Q2 | 44.11 | 6.87 | 3.47 | 6.44 | 39.10 | 11.54 | 42.09 | 3.24 | 3.23 | 4.67 | 35.24 | -212640.4 | 0.78 |
|  | 2006Q2-2016Q2 | 43.52 | 7.82 | 4.23 | 5.90 | 38.53 | 13.93 | 40.13 | 4.26 | 3.37 | 5.10 | 33.21 | -162209.9 | 0.83 |
| CY | 2009Q1-2016Q2 | 45.53 | 2.88 | 2.30 | 6.80 | 42.49 | 21.38 | 34.34 | 1.03 | 1.38 | 10.17 | 31.70 | 34496.7 | 1.44 |
|  | 2006Q2-2016Q2 | 44.77 | 3.67 | 2.24 | 7.09 | 42.23 | 20.04 | 35.27 | 1.37 | 1.65 | 8.78 | 32.89 | 28790.8 | 1.38 |
| DE | 2009Q1-2016Q2 | 40.05 | 3.75 | 1.12 | 17.55 | 37.52 | 15.75 | 34.45 | 2.48 | 0.63 | 13.16 | 33.53 | 1115593.6 | 1.18 |
|  | 2006Q2-2016Q2 | 39.71 | 4.34 | 1.25 | 17.38 | 37.31 | 16.87 | 33.34 | 2.59 | 0.72 | 14.05 | 32.42 | 1362212.4 | 1.24 |
| EE | 2009Q1-2016Q2 | 45.11 | 5.77 | 0.39 | 4.04 | 44.68 | 7.84 | 41.10 | 9.89 | 1.36 | 0.38 | 39.44 | 11590.3 | 1.58 |
|  | 2006Q2-2016Q2 | 45.17 | 5.57 | 0.41 | 4.09 | 44.75 | 7.94 | 40.24 | 11.49 | 1.27 | 0.39 | 38.67 | 12413.4 | 1.65 |
| EL | 2009Q1-2016Q2 | 46.67 | 4.91 | 0.24 | 1.93 | 46.25 | 18.37 | 29.36 | 2.82 | 5.36 | 14.97 | 29.12 | 93512.9 | 1.26 |
|  | 2006Q2-2016Q2 | 46.16 | 5.32 | 0.28 | 2.41 | 45.83 | 15.31 | 31.88 | 3.64 | 5.58 | 11.93 | 31.65 | 65084.2 | 1.19 |
| ES | 2009Q1-2016Q2 | 46.40 | 1.43 | 0.41 | 6.06 | 45.70 | 12.50 | 38.58 | 2.39 | 0.46 | 8.64 | 37.43 | 507190.0 | 1.15 |
|  | 2006Q2-2016Q2 | 46.35 | 1.46 | 0.42 | 6.10 | 45.68 | 12.33 | 38.76 | 2.65 | 0.42 | 8.18 | 37.67 | 624317.3 | 1.20 |
| FI | 2009Q1-2016Q2 | 39.17 | 8.33 | 3.54 | 11.23 | 37.74 | 8.45 | 34.61 | 15.34 | 2.66 | 6.97 | 31.97 | 230383.6 | 1.85 |
|  | 2006Q2-2016Q2 | 39.61 | 9.37 | 2.76 | 9.78 | 38.49 | 8.69 | 35.65 | 13.06 | 2.05 | 7.05 | 33.51 | 211026.8 | 1.85 |
| FR | 2009Q1-2016Q2 | 36.06 | 3.02 | 1.23 | 25.21 | 34.48 | 24.78 | 25.29 | 4.00 | 0.86 | 21.65 | 23.43 | 2668432.0 | 1.72 |
|  | 2006Q2-2016Q2 | 36.18 | 3.53 | 1.04 | 24.65 | 34.61 | 25.07 | 24.92 | 4.68 | 0.68 | 21.48 | 23.17 | 2633381.3 | 1.77 |
| IE | 2009Q1-2016Q2 | 35.16 | 16.16 | 3.83 | 13.47 | 31.38 | 27.01 | 23.86 | 9.50 | 2.34 | 17.16 | 20.13 | 378116.7 | 1.89 |
|  | 2006Q2-2016Q2 | 35.61 | 15.24 | 3.59 | 13.80 | 31.75 | 27.60 | 22.68 | 11.19 | 2.70 | 16.77 | 19.06 | 438638.0 | 2.03 |
| IT | 2009Q1-2016Q2 | 44.70 | 1.15 | 0.18 | 9.95 | 44.01 | 17.46 | 33.94 | 1.95 | 0.28 | 12.95 | 33.41 | 1404313.5 | 1.49 |
|  | 2006Q2-2016Q2 | 44.30 | 1.20 | 0.20 | 10.71 | 43.60 | 18.78 | 32.90 | 2.33 | 0.26 | 13.38 | 32.34 | 1489534.8 | 1.60 |
| LT | 2009Q1-2016Q2 | 46.46 | 3.67 | 0.15 | 3.50 | 46.21 | 7.18 | 41.25 | 9.79 | 0.31 | 0.61 | 40.86 | 10826.9 | 1.43 |
|  | 2006Q2-2016Q2 | 46.77 | 3.08 | 0.18 | 3.42 | 46.56 | 7.92 | 39.97 | 11.43 | 0.42 | 0.66 | 39.60 | 11523.7 | 1.50 |
| LU | 2009Q1-2016Q2 | 39.62 | 14.75 | 4.58 | 21.79 | 19.27 | 32.05 | 32.80 | 3.05 | 1.02 | 7.87 | 23.22 | -51658.5 | 0.89 |
|  | 2006Q2-2016Q2 | 38.58 | 15.04 | 4.71 | 23.70 | 17.97 | 33.00 | 31.03 | 3.08 | 1.17 | 10.07 | 21.65 | -44819.2 | 0.90 |
| LV | 2009Q1-2016Q2 | 43.91 | 4.58 | 0.95 | 8.22 | 42.33 | 8.95 | 39.31 | 8.30 | 6.35 | 1.41 | 35.68 | 11844.2 | 1.57 |
|  | 2006Q2-2016Q2 | 43.91 | 4.58 | 0.95 | 8.22 | 42.33 | 8.95 | 39.31 | 8.30 | 6.35 | 1.41 | 35.68 | 11844.2 | 1.57 |
| MT | 2009Q1-2016Q2 | 39.62 | 17.75 | 5.08 | 4.73 | 32.81 | 21.01 | 31.40 | 15.12 | 1.52 | 2.18 | 28.77 | 1608.9 | 1.12 |
|  | 2006Q2-2016Q2 | 40.70 | 15.26 | 5.80 | 4.73 | 33.51 | 23.18 | 30.87 | 14.13 | 1.37 | 1.82 | 28.62 | 1575.0 | 1.11 |
| NL | 2009Q1-2016Q2 | 46.01 | 5.77 | 1.82 | 4.48 | 41.92 | 7.43 | 42.92 | 6.50 | 2.03 | 1.72 | 39.40 | 636216.6 | 1.36 |
|  | 2006Q2-2016Q2 | 45.36 | 7.35 | 1.70 | 3.91 | 41.67 | 8.55 | 41.72 | 7.24 | 2.05 | 1.97 | 38.47 | 669243.8 | 1.41 |
| PT | 2009Q1-2016Q2 | 47.16 | 2.45 | 0.20 | 4.03 | 46.16 | 14.13 | 37.33 | 3.18 | 0.16 | 8.87 | 36.32 | 114580.0 | 1.26 |
|  | 2006Q2-2016Q2 | 47.25 | 2.24 | 0.20 | 4.09 | 46.22 | 14.74 | 37.79 | 3.33 | 0.18 | 7.71 | 36.25 | 132944.3 | 1.34 |
| SI | 2009Q1-2016Q2 | 46.58 | 0.22 | 0.78 | 6.19 | 46.22 | 17.36 | 37.72 | 0.86 | 0.13 | 6.88 | 37.05 | 15357.5 | 1.33 |
|  | 2006Q2-2016Q2 | 46.88 | 0.25 | 0.63 | 5.71 | 46.54 | 19.10 | 37.03 | 1.52 | 0.12 | 5.78 | 36.46 | 15338.4 | 1.35 |
| SK | 2009Q1-2016Q2 | 47.94 | 2.39 | 0.76 | 2.08 | 46.83 | 3.82 | 46.54 | 0.98 | 0.70 | 2.03 | 45.92 | -5134.3 | 0.94 |
|  | 2006Q2-2016Q2 | 45.53 | 2.01 | 0.72 | 7.14 | 44.60 | 5.59 | 45.38 | 1.44 | 0.60 | 2.16 | 44.84 | -4227.4 | 0.95 |

Source: Own calculation

Table 10. LTD correlation matrix 2009 Q1 to 2016 Q2

|  |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | ECB_IR_D | ECB_IR_L | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AT | Pearson Correlation | -.963** | . $792^{* *}$ | -. 107 | . $965^{* *}$ | -.982** | . $979{ }^{* *}$ | -.974** | . $732 * *$ | -.723** | . $979 * *$ | -.988** | . $893{ }^{* *}$ | . $933 *$ | . $847^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 575 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
| BE | Pearson Correlation | $-.476{ }^{\text {** }}$ | . $792^{* *}$ | . $700^{* *}$ | . 041 | -.658** | . $659{ }^{\text {"* }}$ | -.692** | . $783{ }^{* *}$ | . $560{ }^{* *}$ | . $5411^{* *}$ | -.702** | . $423{ }^{*}$ | . $489{ }^{* *}$ | . 528 ** |
|  | Sig. (2-tailed) | . 008 | . 000 | . 000 | . 828 | . 000 | . 000 | . 000 | . 000 | . 001 | . 002 | . 000 | . 020 | . 006 | . 003 |
| CY | Pearson Correlation | . $602^{* *}$ | -.877** | $-.536^{* *}$ | . 314 | . $509{ }^{* *}$ | $-.776^{* *}$ | . $572{ }^{2 *}$ | -.602** | . $617^{* *}$ | . $781{ }^{* *}$ | . $681^{* *}$ | -.785** | $-.911^{* *}$ | $-.784^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 002 | . 091 | . 004 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
| DE | Pearson Correlation | -. $751^{* *}$ | . $947^{* *}$ | -. 178 | . $421^{*}$ | -.814** | . $928{ }^{* *}$ | -.962** | . $611^{* *}$ | -. 224 | . $888{ }^{* *}$ | $-.960^{* *}$ | . $824^{* *}$ | . 920 ** | . $805{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 348 | . 021 | . 000 | . 000 | . 000 | . 000 | . 234 | . 000 | . 000 | . 000 | . 000 | . 000 |
| EE | Pearson Correlation | . $651^{\text {z* }}$ | -.365* | . $684{ }^{* *}$ | -. 080 | . $735^{* *}$ | . $621^{* *}$ | $-.985^{* *}$ | . $906{ }^{* *}$ | -.860** | . 012 | $-.983^{* *}$ | . $763{ }^{* *}$ | . $847^{* *}$ | . $793{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 047 | . 000 | . 673 | . 000 | . 000 | . 000 | . 000 | . 000 | . 950 | . 000 | . 000 | . 000 | . 000 |
| EL | Pearson Correlation | . $864{ }^{* *}$ | -.754** | -.754** | -.887** | . $858{ }^{* *}$ | . $692^{* *}$ | -.833** | -.723** | . 221 | . $893{ }^{* *}$ | $-.837^{* *}$ | -. $553{ }^{* *}$ | -. $576{ }^{\text {ax }}$ | -. $541^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 240 | . 000 | . 000 | . 002 | . 001 | . 002 |
| ES | Pearson Correlation | -.661** | . $715^{* *}$ | . 213 | . 201 | -.568** | . 274 | -.567** | . $844{ }^{* *}$ | . 284 | . 218 | -. $525^{* *}$ | . $739^{* *}$ | . $883{ }^{* *}$ | . $646^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 258 | . 288 | . 001 | . 142 | . 001 | . 000 | . 128 | . 247 | . 003 | . 000 | . 000 | . 000 |
| FI | Pearson Correlation | $-.852^{* *}$ | . 081 | -. 195 | . $787^{* *}$ | -. $696{ }^{* *}$ | . 121 | -.450* | 255 | . 058 | . 096 | -. 070 | . 373 * | . $507^{* *}$ | . 318 |
|  | Sig. (2-tailed) | . 000 | . 672 | . 303 | . 000 | . 000 | . 524 | . 013 | 174 | . 760 | . 612 | . 712 | . 042 | . 004 | . 087 |
| FR | Pearson Correlation | . 091 | . $799^{* *}$ | -.793** | . 047 | -.404* | . $868{ }^{\text {"** }}$ | $-.876^{\text {TK}}$ | . $890{ }^{* *}$ | -.831** | . $795{ }^{* *}$ | -.931** | . $776{ }^{* *}$ | . $849^{* *}$ | . $763^{* *}$ |
|  | Sig. (2-tailed) | . 632 | . 000 | . 000 | . 807 | . 027 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
| IE | Pearson Correlation | . 134 | -.801** | $-.590^{* *}$ | . $747^{* *}$ | -. 339 | . $991^{* *}$ | -.992** | . $686{ }^{* *}$ | -. 111 | . $926{ }^{* *}$ | -.991** | . $8633^{* *}$ | . $923{ }^{* *}$ | . $855{ }^{* *}$ |
|  | Sig. (2-tailed) | . 482 | . 000 | . 001 | . 000 | . 067 | . 000 | . 000 | . 000 | . 559 | . 000 | . 000 | . 000 | . 000 | . 000 |
| IT | Pearson Correlation | $-.687^{* *}$ | -. $549{ }^{* *}$ | -.776 ${ }^{\text {TK}}$ | . $719{ }^{* *}$ | -.740** | . $910{ }^{\text {ni* }}$ | -.854** | . $935{ }^{* *}$ | -. 095 | . $563{ }^{\text {n* }}$ | $-.868^{* *}$ | . $804{ }^{* *}$ | . $861{ }^{* *}$ | . $818{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 619 | . 001 | . 000 | . 000 | . 000 | . 000 |
| LT | Pearson Correlation | . $627^{7 *}$ | . 007 | . $653^{* *}$ | -. $529^{* *}$ | . $612^{* *}$ | . $944{ }^{\text {"** }}$ | -.995** | . $9822^{* *}$ | .450* | -.426* | -.994** | .779** | . $857^{* *}$ | . 796 ** |
|  | Sig. (2-tailed) | . 000 | . 973 | . 000 | . 003 | . 000 | . 000 | . 000 | . 000 | . 013 | . 019 | . 000 | . 000 | . 000 | . 000 |
| LU | Pearson Correlation | -.586** | -. 074 | -. 201 | . $713{ }^{* *}$ | -.869** | . $915{ }^{* *}$ | -.965** | . 262 | -.789** | . $895{ }^{* *}$ | $-.949^{* *}$ | .774** | . $876{ }^{* *}$ | . $830{ }^{* *}$ |
|  | Sig. (2-tailed) | . 001 | . 697 | . 288 | . 000 | . 000 | . 000 | . 000 | . 162 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
| LV | Pearson Correlation | . $826{ }^{\text {** }}$ | -. $439{ }^{*}$ | . 069 | -.497* | . $833^{* *}$ | . $925^{* *}$ | $-.975^{* *}$ | . $929{ }^{* *}$ | $-.929^{* *}$ | . 259 | $-.966^{* *}$ | . $869^{* *}$ | . $958{ }^{* *}$ | . $878{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 032 | . 750 | . 014 | . 000 | . 000 | . 000 | . 000 | . 000 | . 221 | . 000 | . 000 | . 000 | . 000 |
| MT | Pearson Correlation | $-.627^{* *}$ | . $614^{* *}$ | . $560^{* *}$ | -.468** | -.810** | . $868{ }^{* * *}$ | -.854*** | -. 333 | -.471*** | . 820 ** | -. $573{ }^{* *}$ | . $841^{* *}$ | . $941^{* *}$ | . $739^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 001 | . 009 | . 000 | . 000 | . 000 | . 072 | . 009 | . 000 | . 001 | . 000 | . 000 | . 000 |
| NL | Pearson Correlation | -.864** | . $419{ }^{*}$ | -.690** | . 450 * | -. 116 | . $442{ }^{*}$ | -.659** | . 690 ** | -. 181 | . $502 * *$ | -.631** | .755** | . 840 ** | . $605^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 021 | . 000 | . 013 | . 542 | . 014 | . 000 | . 000 | . 337 | . 005 | . 000 | . 000 | . 000 | . 000 |
| PT | Pearson Correlation | . 181 | -. 032 | -. $524 * *$ | . 308 | -. $513^{* *}$ | . $842^{* *}$ | -. 391 * | . $662^{* *}$ | -.656** | -. 084 | -.603*** | .771*** | . $859{ }^{* *}$ | . $683{ }^{* *}$ |
|  | Sig. (2-tailed) | . 337 | . 865 | . 003 | . 098 | . 004 | . 000 | . 033 | . 000 | . 000 | . 658 | . 000 | . 000 | . 000 | . 000 |
| SI | Pearson Correlation | . $686{ }^{\text {* }}$ | $-.783^{* *}$ | -.851** | -. 193 | . $674 *$ | . $978{ }^{* *}$ | $-.981^{* *}$ | . $787^{* *}$ | -.826 ${ }^{\text {²*}}$ | . 580 ** | $-.976{ }^{\text {*** }}$ | . $854^{* *}$ | . $932{ }^{* *}$ | . $760{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 308 | . 000 | . 000 | . 000 | . 000 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 |
| SK | Pearson Correlation | . 095 | . $542^{* *}$ | . $550{ }^{* *}$ | $-.552^{* *}$ | -. 052 | -.509*** | . $450{ }^{*}$ | . 062 | . $771{ }^{1 * *}$ | -.556** | . $427{ }^{*}$ | -. $563^{* *}$ | -. $653{ }^{\text {²F}}$ | -. $515^{* *}$ |
|  | Sig. (2-tailed) | . 619 | . 002 | . 002 | . 002 | . 786 | . 004 | . 013 | . 745 | . 000 | . 001 | . 019 | . 001 | . 000 | . 004 |

Source: Own calculation

Table 11. EURIBOR 3M correlation matrix 2009 Q1 to 2016 Q2

|  |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AT | Pearson Correlation | -.843** | . 713 ** | -. 213 | . $844 * *$ | -.842** | . 850 ** | -.856** | .766** | -. $579^{* *}$ | . $843^{* *}$ | -.852** | . $847^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 259 | . 000 | . 000 | . 000 | . 000 | . 000 | . 001 | . 000 | . 000 | . 000 |
| BE | Pearson Correlation | $-.570^{\text {at }}$ | . $506^{* *}$ | . $442^{*}$ | . $364{ }^{*}$ | -. $636{ }^{\text {** }}$ | . $847{ }^{* *}$ | $-.827^{* *}$ | . $706{ }^{\text {*** }}$ | . $652^{* *}$ | . $691{ }^{\text {** }}$ | -.845** | . $528{ }^{* *}$ |
|  | Sig. (2-tailed) | . 001 | . 004 | . 015 | . 048 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 003 |
| CY | Pearson Correlation | -. 310 | . $777{ }^{* *}$ | . $676{ }^{\text {** }}$ | -.581** | -. 169 | . $699{ }^{* *}$ | -. $548^{* *}$ | . $469^{* *}$ | $-.600^{* *}$ | -.617** | -. $621^{* *}$ | $-.784^{* *}$ |
|  | Sig. (2-tailed) | . 095 | . 000 | . 000 | . 001 | . 372 | . 000 | . 002 | . 009 | . 000 | . 000 | . 000 | . 000 |
| DE | Pearson Correlation | -. $544 *$ | . $788^{* *}$ | -. 308 | . 274 | -.615** | . $751^{* *}$ | -.755** | 446* | -. $380^{*}$ | . $709^{* *}$ | -.757** | . $805^{* *}$ |
|  | Sig. (2-tailed) | . 002 | . 000 | . 097 | . 143 | . 000 | . 000 | . 000 | . 014 | . 038 | . 000 | . 000 | . 000 |
| EE | Pearson Correlation | . $444^{*}$ | . 029 | . $636{ }^{\text {*** }}$ | -.408* | . $559{ }^{* *}$ | . $727^{* *}$ | $-.749^{* *}$ | . $587^{* *}$ | $-.709^{* *}$ | . $370^{*}$ | -.756** | . $793{ }^{* *}$ |
|  | Sig. (2-tailed) | . 014 | . 880 | . 000 | . 025 | . 001 | . 000 | . 000 | . 001 | . 000 | . 044 | . 000 | . 000 |
| EL | Pearson Correlation | -.614** | . $576{ }^{\text {** }}$ | . 396 * | . $606{ }^{\text {** }}$ | -.604** | -. 054 | . 180 | . 195 | . 181 | -. 347 | . 186 | $-.541^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 001 | . 030 | . 000 | . 000 | . 778 | . 341 | . 302 | . 339 | . 060 | . 325 | . 002 |
| ES | Pearson Correlation | -. 205 | . 295 | . 053 | -. 114 | -. 089 | -. 374 * | . 091 | . $821^{* *}$ | . $653{ }^{\text {** }}$ | -. $397 *$ | . 074 | . 646 ** |
|  | Sig. (2-tailed) | . 276 | . 114 | . 782 | . 548 | . 639 | . 042 | . 633 | . 000 | . 000 | . 030 | . 698 | . 000 |
| FI | Pearson Correlation | -. 214 | . $713{ }^{* *}$ | -.506** | -. 167 | . 123 | -. $524 * *$ | . 343 | -. $534{ }^{* *}$ | -. 190 | -.390* | . $624{ }^{* *}$ | . 318 |
|  | Sig. (2-tailed) | . 257 | . 000 | . 004 | . 378 | . 516 | . 003 | . 063 | . 002 | . 315 | . 033 | . 000 | . 087 |
| FR | Pearson Correlation | . 127 | . $719^{* *}$ | -. $384 *$ | -. 127 | -. 309 | . $653{ }^{* *}$ | -.678** | . $734{ }^{* *}$ | -. $502{ }^{* *}$ | . $547^{* *}$ | -.712** | .763** |
|  | Sig. (2-tailed) | . 505 | . 000 | . 036 | . 504 | . 097 | . 000 | . 000 | . 000 | . 005 | . 002 | . 000 | . 000 |
| IE | Pearson Correlation | . 360 | -.692** | -.611** | . $533 *$ | -. 243 | . 850 ** | -. $838{ }^{* *}$ | .434* | -. 111 | . 848 ** | -.850** | . $855^{* *}$ |
|  | Sig. (2-tailed) | . 051 | . 000 | . 000 | . 002 | . 196 | . 000 | . 000 | . 017 | . 561 | . 000 | . 000 | . 000 |
| IT | Pearson Correlation | -. 331 | -.404* | -.664** | . 379 * | -.376* | . $651{ }^{* *}$ | -. $553{ }^{\text {z* }}$ | . $789^{* *}$ | -. 039 | . 219 | -. $569{ }^{\text {n* }}$ | . $818{ }^{\text {z* }}$ |
|  | Sig. (2-tailed) | . 074 | . 027 | . 000 | . 039 | . 040 | . 000 | . 002 | . 000 | . 836 | . 244 | . 001 | . 000 |
| LT | Pearson Correlation | . $433{ }^{*}$ | . 053 | . $729^{* *}$ | -.402* | . $395^{*}$ | . $792^{* *}$ | $-.778^{* *}$ | . $742^{* *}$ | . 309 | -. 290 | $-.780^{* *}$ | . $796^{* *}$ |
|  | Sig. (2-tailed) | . 017 | . 782 | . 000 | . 028 | . 031 | . 000 | . 000 | . 000 | . 097 | . 120 | . 000 | . 000 |
| LU | Pearson Correlation | -. 285 | . 081 | . 191 | . 331 | -.610** | . $847^{* *}$ | $-.829^{* *}$ | . $366{ }^{*}$ | $-.753^{* *}$ | . $698^{* *}$ | -.859** | . $830{ }^{* *}$ |
|  | Sig. (2-tailed) | . 126 | . 672 | . 311 | . 074 | . 000 | . 000 | . 000 | . 047 | . 000 | . 000 | . 000 | . 000 |
| LV | Pearson Correlation | . $828{ }^{* *}$ | -. 291 | . 090 | -.589** | . $845^{* *}$ | . $792^{* *}$ | $-.860^{* *}$ | . $816^{* *}$ | $-.827^{* *}$ | . 327 | -.817** | . $878{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 168 | . 674 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 | . 119 | . 000 | . 000 |
| MT | Pearson Correlation | -. 178 | . 228 | . $554{ }^{* *}$ | -. $485{ }^{\text {***}}$ | -.432* | . $759{ }^{* *}$ | -.641** | $-.368^{*}$ | -.376* | . $534{ }^{* *}$ | $-.367^{*}$ | .739** |
|  | Sig. (2-tailed) | . 347 | . 225 | . 001 | . 007 | . 017 | . 000 | . 000 | . 045 | . 040 | . 002 | . 046 | . 000 |
| NL | Pearson Correlation | -.629** | . $754{ }^{* *}$ | $-.748^{* *}$ | -. 002 | . 074 | . $471{ }^{* *}$ | $-.742^{* *}$ | . $689{ }^{\text {*** }}$ | -. 016 | . 581 ** | -.610** | . $605^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 992 | . 697 | . 009 | . 000 | . 000 | . 935 | . 001 | . 000 | . 000 |
| PT | Pearson Correlation | . 302 | -. 178 | -. 174 | . 142 | -. 272 | . $668{ }^{* *}$ | -. 294 | . $430^{*}$ | $-.516^{* *}$ | -. 098 | -.419* | . $683{ }^{\text {** }}$ |
|  | Sig. (2-tailed) | . 105 | . 347 | . 359 | . 456 | . 147 | . 000 | . 115 | . 018 | . 004 | . 605 | . 021 | . 000 |
| SI | Pearson Correlation | . 774 ** | -. $535^{* *}$ | $-.697^{* *}$ | -.518** | . $778^{* *}$ | . $783^{* *}$ | -.691** | . $816^{* *}$ | $-.710^{* *}$ | . 057 | -.668** | . 760 ** |
|  | Sig. (2-tailed) | . 000 | . 002 | . 000 | . 003 | . 000 | . 000 | . 000 | . 000 | . 000 | . 764 | . 000 | . 000 |
| SK | Pearson Correlation | -. 269 | -.467** | $-.720^{* *}$ | . $618^{* *}$ | . 127 | . 629 ** | -.595** | . $547^{* *}$ | $-.760^{* *}$ | . $506{ }^{* *}$ | -.609** | $-.515^{* *}$ |
|  | Sig. (2-tailed) | . 151 | . 009 | . 000 | . 000 | . 503 | . 000 | . 001 | . 002 | . 000 | . 004 | . 000 | . 004 |

Source: Own calculation

## CONCLUSION

The unconventional monetary policy of quantitative easing by the ECB has resulted in many challenges to banks. As a result of declining IRs, and because of intrinsically different business models across banks, banking business was impacted differently in different Euro areas. In this work the main focus is an attempt to answer two research questions related to the phenomenon of low and even negative interest rates. The main questions are the following: How and in what manner do interest rates correlate with bank funding structure and secondly, how do interest rates correlate with two ratios - LTD and GLTDFq.

It is difficult to draw any concrete conclusions from the data analysis regarding interest rate correlation with funding structures, thus I am unable to answer the first research question with certainty. From the correlation data on EURIBOR 3M with funding structures I do not see any distinct pattern. Even when attempting to generalize, by saying what correlation effects (positive and negative correlations) appear according to observed, the result variables just tend to offset each other. Generalization in a sense of means of statistically significant correlation data gave illustrative results but the question is to what degree can this method be used to render a broader picture.

Regarding research question 2 and effect of IR on LTD, the data does provide some conclusions. Deriving from the equation for LTD calculation, increased IR would lead to decreases in loan activity and simultaneously to increases in deposit activity. By looking at the correlation tables of LTD with EURIBOR one may observe that in the majority of cases there are strong correlations between two variables, meaning that decreased IR would lead to decreased LTD ratio (and vice versa). Reducing the IR should, on average, decrease the average deposit base. The data show that LTD ratio is in a decreasing trend for the majority of countries.

The main problem, as mentioned previously, is the use of aggregated balance sheet data, by which there is no possible way to generalize, as the banking sectors of the countries included in the research differ. A solution to this would be to focus on a specific banking business model. In that way data analysis would be much more conclusive. Another path to reliable data would be to include similar sized banks and banking sectors.

As far as the banking model is concerned, the role of liquidity transformation is somewhat archaic. Banks have recently seen disruption from financial technology companies, with an increasing role of peer-to-peer funding or trading advisory services using algorithms. Basel III has brought solutions to liquidity issues in the forms of LCR and NSFR, there is also regulation of capital buffers which has created more resilient banks. The question is therefore what will Basel IV bring. Finally, low IR renders a wide scope of challenges, from declining interest margins and profits to investors seeking riskier assets to invest in, in order to compensate for low rates.

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## APPENDIXES

## TABLE OF APPENDIXES

Appendix A: List of abbreviations
.1
Appendix B: Statistical data results ..... 2

## APPENDIX A: List of abbreviations

ALCO - asset liability committee
ALM - asset liability management
APP - asset purchase programme
ASF - available stable funding
BCBS - Basel Committee on Banking Supervision
BIS - Bank for International Settlements
CBPP - covered bond purchase programme
CCR - counterparty credit risk
CDs - certificates of deposit
CDS - credit default swap
CRR - capital requirements regulation
CVA - credit valuation adjustment
EBA - European Banking Authority
EBF - European Banking Federation
ECB - European Central Bank
ECBC - European Covered Bond Council
EDIS - European deposit insurance scheme
EMU - European Monetary Union
EU - European Union
FTP - funds transfer pricing
FVC - financial vehicle corporation
FX - foreign exchange
GDP - gross domestic product
GLTDFq - quarterly gross loan to deposit flow
HQLA - high quality liquid assets
ICPFs - insurance corporations and pension funds
IR - interest rate
LCR - liquidity coverage ratio
LTD - loan-to-deposit ratio
MFIs - monetary financial institutions
MMF - money market funds
NIM - net interest margin
NSFR - net stable funding ratio
OBS - off-balance sheet
OFIs - other financial institutions
QE - quantitative easing
RMBS - residential mortgage backed securities
ROA - return on assets
RSF - required stable funding

## APPENDIX B: Statistical data results

Data was obtained from ECB's SDW. For the balance sheet data on the asset side of balance sheet I have selected the following dataset filters (mentioning those parameters that could be selected): Balance sheet item (A20 - loans), Counterpart area (U2 - euro area, U3 - EU member states not belonging to EMU and U6 - domestic), balance sheet counterpart sector (1000 - MFIs, 2000 - non-MFIs), currency of transaction (Z01 - all currencies combines) and balance sheet suffix ( E - euro), internet link to data is: http://sdw.ecb.europa.eu/browseSelection.do?removeItem=\&COUNT_AREA=U2\&COU NT_AREA=U3\&COUNT_AREA=U6\&BS_COUNT_SECTOR=1000\&BS_COUNT_SE CTOR=2000\&ec=\&rc=\&legendPub=published\&oc=\&df=true\&BS_ITEM=A20\&DATAS ET $=0 \&$ CURRENCY_TRANS=Z01\&dc=\&REF_AREA=50\&node=9691311\&FREQ=Q\& $\mathrm{pb}=\&$ legendNor=\&activeTab=\&legendRef=reference\&trans=N

For liabilities side of balance sheet the selected dataset filters were: Balance sheet item (L20 - deposit liabilities), Counterpart area (U2 - euro area, U3 - EU member states not belonging to EMU and U6 - domestic), balance sheet counterpart sector (1000 - MFIs, 2000 - nonMFIs), currency of transaction (Z01 - all currencies combines) and balance sheet suffix (E - euro), link to data is:
http://sdw.ecb.europa.eu/browseSelection.do?COUNT_AREA=U2\&COUNT_AREA=U3 \&COUNT_AREA=U6\&BS_COUNT_SECTOR=1000\&BS_COUNT_SECTOR=2000\&ty pe=\&legendPub=published\&df=true\&BS_ITEM=L20\&DATASET=0\&CURRENCY_TR ANS=Z01\&REF_AREA=50\&node $=9691312 \&$ FREQ $=$ Q \&q=\&trans $=\mathrm{N}$

To calculate LTD ratio I have used following equation:

$$
\text { LTD }=\frac{\text { Total loans }}{\text { Non-MFIs deposits }}
$$

Total loans include all loans to MFIs as well as to non-MFIs. Non-MFIs deposits are part of stable funding. The LTD gap tells if banks are underfunded or overfunded, or how well are non-MFIs deposits utilized. LTD gap is calculated as difference between total loans and nonMFIs deposits:

## LTD gap=Total loans (MFIs \& non-MFIs)- Non-MFIs Deposits

For calculation of GLTDFq I used following equation:

$$
\text { GLTDF } q=\frac{\Delta \text { loans (non-MFIs) }}{\Delta \text { deposits (non-MFIs) }}
$$

Data for calculation included all non-MFIs loans as well as all non-MFIs deposits.

Again data in correlation tables have additional markings, where ** means correlation is significant at the 0.01 level (2-tailed) and * means correlation is significant at the 0.05 level (2-tailed).

All variable names are same as mentioned before in Table 3.

| AT 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | AT 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_EU_area_Non-MFIs | 41 | 299145 | 377069 | 354566.00 | 23315.948 | L_EU_area_Non-MFIs | 30 | 353285 | 377069 | 366930.67 | 6892.524 |
| L1 | 41 | 36.1752\% | 42.3927\% | 39.733683\% | 1.4484643\% | L1 | 30 | 37.3006\% | 42.3927\% | 39.991291\% | 1.4171279\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 21923 | 51409 | 34599.02 | 8301.965 | L_EU_memb_Non_EMU_MFIs | 30 | 21923 | 44721 | 30764.83 | 5450.737 |
| L2 | 41 | 2.4856\% | 6.5034\% | 3.914532\% | 1.0925234\% | L2 | 30 | 2.4856\% | 4.7068\% | 3.342032\% | .5356122\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 16600 | 34634 | 26872.44 | 3988.472 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 24315 | 34634 | 28170.33 | 2620.423 |
| L3 | 41 | 2.2250\% | 3.7731\% | 2.998494\% | .3367927\% | L3 | 30 | 2.7716\% | 3.7731\% | 3.069053\% | .2898004\% |
| L_Domestic_MFIs | 41 | 108640 | 223075 | 160029.20 | 33422.051 | L_Domestic_MFIs | 30 | 122564 | 210443 | 166670.90 | 28413.082 |
| L4 | 41 | 13.9666\% | 23.4718\% | 17.782915\% | 2.7563032\% | L4 | 30 | 13.9666\% | 22.1489\% | 18.081317\% | 2.6136602\% |
| L_Domestic_Non_MFIs | 41 | 280851 | 335793 | 317029.85 | 16792.141 | L_Domestic_Non_MFIs | 30 | 311794 | 335793 | 325784.97 | 7363.563 |
| L5 | 41 | 32.3361\% | 38.2648\% | 35.570376\% | 1.6427023\% | L5 | 30 | 32.8916\% | 38.2648\% | 35.516307\% | 1.5803843\% |
| Total loans (MFIs) | 41 | 144487 | 270078 | 194628.22 | 35536.592 | Total loans (MFIs) | 30 | 144487 | 255164 | 197435.73 | 32873.786 |
| Total loans (non-MFIs) | 41 | 596596 | 736319 | 698468.29 | 42670.697 | Total loans (non-MFIs) | 30 | 693034 | 736319 | 720885.97 | 13742.902 |
| TOTAL LOANS | 41 | 742334 | 965012 | 893096.51 | 61095.924 | TOTAL LOANS | 30 | 877291 | 965012 | 918321.70 | 27383.417 |
| D_EU_area_MFIs | 41 | 150073 | 296368 | 204736.59 | 39849.232 | D_EU_area_MFls | 30 | 150073 | 278219 | 205404.27 | 37283.466 |
| D1 | 41 | 15.4382\% | 26.6280\% | 20.727478\% | 2.7870179\% | D1 | 30 | 15.4382\% | 24.9366\% | 20.148444\% | 2.8266680\% |
| D_EU_area_Non_MFls | 41 | 247019 | 354697 | 310597.39 | 29005.701 | D_EU_area_Non_MFls | 30 | 300706 | 354697 | 324744.70 | 15740.593 |
| D2 | 41 | 26.4971\% | 36.4881\% | 31.685618\% | 2.6342425\% | D2 | 30 | 27.5426\% | 36.4881\% | 32.135468\% | 2.7400034\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 9329 | 19224 | 13976.02 | 2736.073 | D_EU_memb_Non_EMU_MFIs | 30 | 9329 | 17489 | 12938.83 | 2312.375 |
| D3 | 41 | . $9605 \%$ | 2.4357\% | 1.441489\% | .3700032\% | D3 | 30 | .9605\% | 1.6674\% | 1.271122\% | .1889489\% |
| D_EU_memb_Non_EMU_Non_MFls | 41 | 2855 | 5830 | 4502.20 | 855.673 | D_EU_memb_Non_EMU_Non_MFls | 30 | 2956 | 5830 | 4803.07 | 743.672 |
| D4 | 41 | .2649\% | . $5940 \%$ | .461256\% | .0910885\% | D4 | 30 | .2649\% | .5940\% | .475986\% | .0821810\% |
| D_Domestic_MFls | 41 | 120871 | 243763 | 165509.63 | 35601.758 | D_Domestic_MFls | 30 | 120871 | 228862 | 169549.83 | 32167.640 |
| D5 | 41 | 12.4341\% | 21.6310\% | 16.701595\% | 2.3707297\% | D5 | 30 | 12.4341\% | 20.5768\% | 16.624751\% | 2.4601951\% |
| D_Domestic_Non_MFls | 41 | 228820 | 329527 | 283986.44 | 26191.512 | D_Domestic_Non_MFls | 30 | 276424 | 329527 | 296505.17 | 15566.622 |
| D6 | 41 | 24.1648\% | 33.8988\% | 28.982562\% | 2.4973301\% | D6 | 30 | 25.2690\% | 33.8988\% | 29.344229\% | 2.6167921\% |
| Total deposits (MFIs) | 41 | 282092 | 546855 | 384222.24 | 75965.600 | Total deposits (MFIs) | 30 | 282092 | 523528 | 387892.93 | 71254.898 |
| Total deposits (non-MFIs) | 41 | 479632 | 689998 | 599086.02 | 55668.485 | Total deposits (non-MFIs) | 30 | 580362 | 689998 | 626052.93 | 31690.064 |
| TOTAL DEPOSITS | 41 | 780406 | 1126913 | 983308.27 | 89033.534 | TOTAL DEPOSITS | 30 | 963992 | 1115706 | 1013945.87 | 45354.821 |
| LTD gap | 41 | 187553 | 383351 | 294010.49 | 51085.605 | LTD gap | 30 | 187553 | 360395 | 292268.77 | 54425.276 |
| LTD | 41 | 1.2718167 | 1.6760492 | 1.4973961 | 0.1037520 | LTD | 30 | 1.2718167 | 1.6176023 | 1.4718635 | 0.1068439 |
| GLTDFq | 40 | -6.8729730 | 5.1437126 | 0.1642415 | 2.2887167 | GLTDFq | 30 | -6.8729730 | 5.1437126 | -0.1374340 | 2.5223994 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| AT 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,533** | -. 026 | -,860" | ,920" | -,969" | ,968" | -. 292 | ,798* | -,944** | ,971" | -,922" | . 025 | -,456" | -,546" | -,547* |
|  | Sig. (2-tailed) |  | . 000 | . 872 | . 000 | . 000 | . 000 | . 000 | . 064 | . 000 | . 000 | . 000 | . 000 | . 880 | . 003 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | -,533" | 1 | -. 209 | . 036 | -. 213 | ,570" | -,513" | ,803* | -,499" | . 294 | -,475" | ,621" | . 140 | ,926" | ,928" | ,923" |
|  | Sig. (2-tailed) | . 000 |  | . 189 | . 822 | . 181 | . 000 | . 001 | . 000 | . 001 | . 062 | . 002 | . 000 | . 389 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | -. 026 | -. 209 | 1 | . 112 | -. 230 | -. 127 | . 142 | -,492" | -. 165 | -. 015 | . 086 | -. 188 | -. 276 | -. 276 | -,352* | -. 264 |
|  | Sig. (2-tailed) | . 872 | . 189 |  | . 487 | . 148 | . 428 | . 376 | . 001 | . 303 | . 924 | . 594 | . 238 | . 085 | . 080 | . 024 | . 095 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -,860" | . 036 | . 112 | 1 | -,967" | ,818" | -,849" | -. 122 | -,650" | ,948** | -,876" | ,728** | -. 108 | -. 014 | . 103 | . 096 |
|  | Sig. (2-tailed) | 000 | . 822 | . 487 |  | . 000 | . 000 | . 000 | 447 | . 000 | . 000 | . 000 | . 000 | . 506 | . 932 | . 522 | . 549 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,920" | -. 213 | -. 230 | -,967* | 1 | -,871" | ,882" | . 029 | ,753* | -,950" | ,911* | -,783* | . 121 | -. 134 | -. 236 | -. 239 |
|  | Sig. (2-tailed) | 000 | . 181 | . 148 | . 000 |  | . 000 | . 000 | . 857 | . 000 | . 000 | . 000 | . 000 | . 457 | . 403 | . 137 | . 132 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | -,969" | ,570" | -. 127 | ,818** | -,871" | 1 | -,994* | ,388 ${ }^{\circ}$ | -,798* | ,941** | -,989" | ,962* | . 007 | ,494" | ,604* | ,583** |
|  | Sig. (2-tailed) | . 000 | . 000 | . 428 | . 000 | . 000 |  | . 000 | . 012 | . 000 | . 000 | . 000 | . 000 | . 965 | . 001 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | ,968" | -,513" | . 142 | -,849" | ,882" | -,994" | 1 | -,358* | ,771" | -,963* | ,994* | -,958* | . 005 | -,429" | -,545" | -,523* |
|  | Sig. (2-tailed) | . 000 | . 001 | . 376 | . 000 | . 000 | . 000 |  | . 022 | . 000 | . 000 | . 000 | . 000 | . 977 | . 005 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -. 292 | ,803** | -,492" | -. 122 | . 029 | ,388* | -,358* | 1 | -. 093 | . 122 | -,316* | ,529** | . 189 | ,776" | ,827** | ,761" |
|  | Sig. (2-tailed) | . 064 | . 000 | . 001 | . 447 | . 857 | . 012 | . 022 |  | . 563 | 448 | . 044 | . 000 | . 244 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | ,798" | -,499" | -. 165 | -,650" | ,753" | -,798" | ,771" | -. 093 | 1 | -,742" | ,759" | -,675" | . 077 | -,377* | -,424" | -,463* |
|  | Sig. (2-tailed) | . 000 | . 001 | . 303 | . 000 | . 000 | . 000 | . 000 | . 563 |  | . 000 | . 000 | . 000 | . 636 | . 015 | . 006 | . 002 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -,944" | . 294 | -. 015 | ,948* | -,950" | ,941" | -,963" | . 122 | -,742" | 1 | -,975" | ,886* | -. 077 | . 203 | ,322 | ,310 ${ }^{\circ}$ |
|  | Sig. (2-tailed) | . 000 | . 062 | . 924 | . 000 | . 000 | . 000 | . 000 | . 448 | . 000 |  | . 000 | . 000 | . 636 | . 203 | . 040 | . 048 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | ,971" | -,475* | . 086 | -,876" | ,911" | -,989" | ,994" | -,316* | ,759" | -,975* | 1 | -,958* | . 031 | -,394* | -,512" | -,488* |
|  | Sig. (2-tailed) | . 000 | . 002 | . 594 | . 000 | . 000 | . 000 | . 000 | . 044 | . 000 | . 000 |  | . 000 | . 850 | . 011 | . 001 | . 001 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | -,922" | ,621" | -. 188 | ,728* | -,783" | ,962" | -,958" | ,529" | -,675" | ,886* | -,958* | 1 | -. 030 | ,542" | ,658" | ,613" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 238 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 852 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | . 025 | . 140 | -. 276 | -. 108 | . 121 | . 007 | . 005 | . 189 | . 077 | -. 077 | . 031 | -. 030 | 1 | . 242 | . 196 | . 266 |
|  | Sig. (2-tailed) | . 880 | . 389 | . 085 | . 506 | . 457 | . 965 | . 977 | . 244 | . 636 | . 636 | . 850 | . 852 |  | . 133 | . 226 | . 097 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | -,456" | ,926** | -. 276 | -. 014 | -. 134 | ,494* | -,429" | ,776* | -,377* | . 203 | -,394* | ,542* | . 242 | 1 | ,975* | ,983** |
|  | Sig. (2-tailed) | . 003 | . 000 | . 080 | . 932 | . 403 | . 001 | . 005 | . 000 | . 015 | . 203 | . 011 | . 000 | . 133 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | -,546" | ,928" | -,352* | . 103 | -. 236 | ,604" | -,545* | ,827* | -,424* | ,322* | -,512" | ,658* | . 196 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 024 | . 522 | . 137 | . 000 | . 000 | . 000 | . 006 | . 040 | . 001 | . 000 | . 226 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | -,547" | ,923** | -. 264 | . 096 | -. 239 | ,583" | -,523" | ,761* | -,463* | ,310 | -,488* | ,613** | . 266 | ,983** | ,966" | 1 |
|  | Sig. (2-tailed) | 000 | . 000 | . 095 | . 549 | . 132 | . 000 | . 000 | . 000 | . 002 | . 048 | . 001 | . 000 | . 097 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| AT 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,854" | . 077 | -,976" | ,993** | -,973" | ,976" | -,674" | ,769" | -,982" | ,978" | -,963" | -,862" | -,901" | -,843" |
|  | Sig. (2-tailed) |  | . 000 | . 687 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -,854" | 1 | . 179 | ,736" | -,822" | ,823* | -,817" | ,553" | -,878" | ,806" | -,804" | ,792" | ,683" | ,674" | ,713" |
|  | Sig. (2-tailed) | . 000 |  | . 344 | . 000 | . 000 | . 000 | . 000 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | . 077 | . 179 | 1 | -. 241 | . 086 | -. 208 | . 220 | -. 118 | . 021 | -. 191 | . 181 | -. 107 | -. 161 | -. 306 | -. 213 |
|  | Sig. (2-tailed) | . 687 | . 344 |  | . 199 | . 650 | . 271 | . 242 | . 534 | . 914 | . 313 | . 340 | . 575 | . 396 | . 100 | . 259 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,976" | ,736" | -. 241 | 1 | -,984" | ,973* | -,977" | ,689" | -,687" | ,985* | -,983" | ,965* | ,875" | ,944" | ,844" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 199 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,993* | -,822" | . 086 | -,984* | 1 | -,978** | ,977* | -,700" | ,740" | -,986** | ,988" | -,982* | -,877" | -,925* | -,842" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 650 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -,973* | ,823* | -. 208 | ,973* | -,978** | 1 | -,999" | ,702" | -,786" | ,995* | -,996" | ,979* | ,872" | ,932" | ,850" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 271 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | ,976" | -,817" | . 220 | -,977" | ,977** | -,999" | 1 | -,712" | ,777* | -,995" | ,994" | -,974" | -,874" | -,933" | -,856" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 242 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -,674" | ,553" | -. 118 | ,689" | -,700" | ,702" | -,712" | 1 | -,395* | ,678* | -,710" | ,732" | ,767* | ,772" | ,766" |
|  | Sig. (2-tailed) | . 000 | . 002 | . 534 | . 000 | . 000 | . 000 | . 000 |  | . 031 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | ,769" | -,878* | . 021 | -,687" | ,740" | -,786" | ,777" | -,395* | 1 | -,765" | ,751" | -,723" | -,522" | -,619" | -,579" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 914 | . 000 | . 000 | . 000 | . 000 | . 031 |  | . 000 | . 000 | . 000 | . 003 | . 000 | . 001 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -,982" | ,806" | -. 191 | ,985" | -,986** | ,995* | -,995" | ,678" | -,765" | 1 | -,997" | ,979" | ,870" | ,927" | ,843" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 313 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | ,978" | -,804" | . 181 | -,983" | ,988** | -,996" | ,994* | -,710" | ,751" | -,997* | 1 | -,988" | -,883* | -,938" | -,852" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 340 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | -,963" | ,792" | -. 107 | ,965" | -,982** | ,979" | -,974" | ,732" | -,723" | ,979" | -,988" | 1 | ,893** | ,933" | ,847" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 575 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -,862" | ,683" | -. 161 | ,875" | -,877** | ,872" | -,874" | ,767" | -,522" | ,870" | -,883" | ,893* | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 396 | . 000 | . 000 | . 000 | . 000 | . 000 | . 003 | . 000 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -,901" | ,674" | -. 306 | ,944" | -,925** | ,932" | -,933" | ,772" | -,619" | ,927* | -,938* | ,933* | ,931* | 1 | ,877" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 100 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -,843" | ,713" | -. 213 | ,844" | -,842" | ,850" | -,856" | ,766" | -,579" | ,843" | -,852" | ,847* | ,919** | ,877" | 1 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 259 | . 000 | . 000 | . 000 | . 000 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| BE 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | BE 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 282521.0 | 375909.0 | 328213.000 | 24037.4829 | L_E_area_Non_MFls | 30 | 304480.0 | 375909.0 | 329650.133 | 22825.1143 |
| L1 | 41 | 40.4396\% | 45.6972\% | 43.524552\% | 1.3871276\% | L1 | 30 | 41.7078\% | 45.6972\% | 44.108145\% | .9965592\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 37415.0 | 106740.0 | 59315.732 | 17465.9802 | L_EU_memb_Non_EMU_MFIs | 30 | 37415.0 | 72768.0 | 51374.533 | 9301.7640 |
| L2 | 41 | 5.2882\% | 13.2475\% | 7.824764\% | 2.0545162\% | L2 | 30 | 5.2882\% | 9.6926\% | 6.874167\% | 1.1727564\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 16468.0 | 60351.0 | 31973.463 | 11496.7767 | L_EU_memb_Non_EMU_Non_MFls | 30 | 16468.0 | 38967.0 | 25893.967 | 4935.5419 |
| L3 | 41 | 2.3346\% | 7.7241\% | 4.227651\% | 1.4426399\% | L3 | 30 | 2.3346\% | 5.1576\% | 3.471201\% | .6648744\% |
| L_Domestic_MFIs | 41 | 26181.0 | 69931.0 | 44049.341 | 12309.0238 | L_Domestic_MFIs | 30 | 27811.0 | 69931.0 | 47643.900 | 11827.5549 |
| L4 | 41 | 3.5988\% | 9.6038\% | 5.896923\% | 1.8056695\% | L4 | 30 | 3.7044\% | 9.6038\% | 6.443758\% | 1.7778225\% |
| L_Domestic_Non_MFIs | 41 | 255312.0 | 343639.0 | 290473.902 | 22520.0919 | L_Domestic_Non_MFIs | 30 | 267495.0 | 343639.0 | 292335.733 | 23723.7307 |
| L5 | 41 | 36.0740\% | 41.7497\% | 38.526110\% | 1.6701982\% | L5 | 30 | 36.0740\% | 41.7497\% | 39.102729\% | 1.5184170\% |
| Total loans (MFIs) | 41 | 80044.0 | 137015.0 | 103365.073 | 16174.4798 | Total loans (MFIs) | 30 | 80044.0 | 128897.0 | 99018.433 | 12736.0753 |
| Total loans (non-MFIs) | 41 | 580408.0 | 743049.0 | 650660.366 | 46214.3522 | Total loans (non-MFIs) | 30 | 599519.0 | 743049.0 | 647879.833 | 45680.6240 |
| TOTAL LOANS | 41 | 667473.0 | 852295.0 | 754025.439 | 48527.6927 | TOTAL LOANS | 30 | 693280.0 | 823093.0 | 746898.267 | 40167.5907 |
| D_E_area_MFls | 41 | 81878.0 | 344087.0 | 167280.341 | 62367.5047 | D_E_area_MFls | 30 | 81878.0 | 210209.0 | 137697.733 | 38730.1630 |
| D1 | 41 | 6.9822\% | 23.9961\% | 13.931042\% | 4.8842047\% | D1 | 30 | 6.9822\% | 17.1710\% | 11.535775\% | 3.1271965\% |
| D_E_area_Non_MFls | 41 | 374742.0 | 551589.0 | 479349.366 | 47342.5274 | D_E_area_Non_MFls | 30 | 456259.0 | 551589.0 | 501345.000 | 30915.7147 |
| D2 | 41 | 30.9623\% | 45.8589\% | 40.129266\% | 4.0428425\% | D2 | 30 | 37.4727\% | 45.8589\% | 42.088651\% | 2.6406723\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 23064.0 | 105568.0 | 50913.268 | 24296.1156 | D_EU_memb_Non_EMU_MFIs | 30 | 23064.0 | 63278.0 | 38608.667 | 12305.6475 |
| D3 | 41 | 1.9663\% | 8.9965\% | 4.258234\% | 2.0203970\% | D3 | 30 | 1.9663\% | 5.0980\% | 3.244529\% | 1.0481684\% |
| D_EU_memb_Non_EMU_Non_MFIs | 41 | 23815.0 | 67034.0 | 40390.171 | 9565.1660 | D_EU_memb_Non_EMU_Non_MFIs | 30 | 23815.0 | 63579.0 | 38437.067 | 8675.9505 |
| D4 | 41 | 2.0122\% | 5.1712\% | 3.369972\% | .7310264\% | D4 | 30 | 2.0122\% | 5.1712\% | 3.225388\% | .7198697\% |
| D_Domestic_MFls | 41 | 19835.0 | 161414.0 | 61633.707 | 28780.7024 | D_Domestic_MFls | 30 | 19835.0 | 97338.0 | 55805.067 | 24475.0481 |
| D5 | 41 | 1.6577\% | 11.2568\% | 5.096637\% | 2.1341152\% | D5 | 30 | 1.6577\% | 7.9511\% | 4.666169\% | 1.9850289\% |
| D_Domestic_Non_MFls | 41 | 313679.0 | 493547.0 | 396495.805 | 53596.3027 | D_Domestic_Non_MFIs | 30 | 354356.0 | 493547.0 | 419756.567 | 42760.5561 |
| D6 | 41 | 23.5307\% | 40.5291\% | 33.214849\% | 4.6460213\% | D6 | 30 | 29.1210\% | 40.5291\% | 35.239489\% | 3.6044275\% |
| Total deposits (MFIs) | 41 | 131801.0 | 585503.0 | 279827.317 | 105709.9661 | Total deposits (MFIs) | 30 | 131801.0 | 366849.0 | 232111.467 | 70651.6205 |
| Total deposits (non-MFIs) | 41 | 736505.0 | 1078546.0 | 916235.341 | 95248.8076 | Total deposits (non-MFIs) | 30 | 853601.0 | 1078546.0 | 959538.633 | 67710.7656 |
| TOTAL DEPOSITS | 41 | 1077518.0 | 1433927.0 | 1196062.659 | 58717.4970 | TOTAL DEPOSITS | 30 | 1128926.0 | 1241235.0 | 1191650.100 | 30485.1685 |
| LTD gap | 41 | -267997.0 | 15070.0 | -162209.902 | 96582.7318 | LTD gap | 30 | -267997.0 | -84846.0 | -212640.367 | 50749.2361 |
| LTD | 41 | . 7291004 | 1.0183837 | . 8307985 | . 0952853 | LTD | 30 | . 7291004 | . 9010625 | . 7803533 | . 0441146 |
| GLTDFq | 40 | -2.8765128 | 8.3409639 | . 7225879 | 1.7924868 | GLTDFq | 30 | -2.4205278 | 8.3409639 | . 6926959 | 1.6529121 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| BE 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,814" | -,825" | -. 005 | ,889" | -,835" | ,828" | -,847" | -,450" | -,499" | ,826" | -,788" | -. 045 | -,793" | -,858" | -,760" |
|  | Sig. (2-tailed) |  | . 000 | . 000 | . 974 | . 000 | . 000 | . 000 | . 000 | . 003 | . 001 | . 000 | . 000 | . 782 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | -,814" | 1 | ,828" | -,477* | -,754" | ,748" | -,754" | ,923* | ,392* | ,333* | -,746" | ,905" | . 103 | ,840" | ,832" | ,825" |
|  | Sig. (2-tailed) | . 000 |  | . 000 | . 002 | . 000 | . 000 | . 000 | . 000 | . 011 | . 034 | . 000 | . 000 | . 525 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | -,825" | ,828" | 1 | -,403* | -,761" | ,856* | -,847" | ,866* | ,509" | ,405* | -,806" | ,881" | . 034 | ,882" | ,883" | ,860" |
|  | Sig. (2-tailed) | . 000 | . 000 |  | . 009 | . 000 | . 000 | . 000 | . 000 | . 001 | . 009 | . 000 | . 000 | . 836 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -. 005 | -,477" | -,403* | 1 | -. 142 | -. 109 | . 109 | -,382* | . 072 | ,340 ${ }^{\circ}$ | . 018 | -,420" | -. 270 | -,393* | -. 256 | -,370 ${ }^{\text {- }}$ |
|  | Sig. (2-tailed) | . 974 | . 002 | . 009 |  | . 377 | . 499 | . 498 | . 014 | . 657 | . 030 | . 910 | . 006 | . 092 | 011 | . 106 | . 017 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,889" | -,754" | -,761" | -. 142 | 1 | -,849* | ,854" | -,767* | -,625* | -,712** | ,908" | -,766" | . 172 | -,711" | -,796" | -,726" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 377 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 288 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | -,835" | ,748** | ,856" | -. 109 | -,849" | 1 | -,993" | ,835* | ,584** | ,723* | -,975* | ,883* | -. 067 | ,885" | ,940" | ,910" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 499 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 683 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | ,828" | -,754" | -,847" | . 109 | ,854" | -,993* | 1 | -,833* | -,629" | -,750" | ,979" | -,882" | . 094 | -,871" | -,924" | -,903" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 498 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 565 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -,847" | ,923** | ,866" | -,382* | -,767" | ,835* | -,833" | 1 | ,448* | ,341* | -,815" | ,926* | . 082 | ,892" | ,917* | ,885" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 014 | . 000 | . 000 | . 000 |  | . 003 | . 029 | . 000 | . 000 | . 613 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | -,450" | ,392* | ,509" | . 072 | -,625" | ,584" | -,629" | ,448" | 1 | ,540" | -,667" | ,435" | -. 236 | ,400" | ,459" | ,474" |
|  | Sig. (2-tailed) | . 003 | . 011 | . 001 | . 657 | . 000 | . 000 | . 000 | . 003 |  | . 000 | . 000 | . 004 | . 143 | . 010 | . 003 | . 002 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -,499" | ,333* | ,405" | ,340* | -,712" | ,723* | -,750" | ,341* | ,540" | 1 | -,800" | ,475" | $-, 367^{*}$ | ,446" | ,531" | ,527" |
|  | Sig. (2-tailed) | . 001 | . 034 | . 009 | . 030 | . 000 | . 000 | . 000 | . 029 | . 000 |  | . 000 | . 002 | . 020 | . 003 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | ,826" | -,746" | -,806* | . 018 | ,908" | -,975* | ,979" | -,815* | -,667* | -,800" | 1 | -,850" | . 160 | -,828" | -,898" | -,872" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 910 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 324 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | -,788" | ,905" | ,881" | -,420" | -,766" | ,883* | -,882" | ,926* | ,435* | ,475* | -,850" | 1 | . 060 | ,930" | ,921" | ,925" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 006 | . 000 | . 000 | . 000 | . 000 | . 004 | . 002 | . 000 |  | . 713 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | -. 045 | . 103 | . 034 | -. 270 | . 172 | -. 067 | . 094 | . 082 | -. 236 | -,367* | . 160 | . 060 | 1 | . 100 | . 036 | . 027 |
|  | Sig. (2-tailed) | . 782 | . 525 | . 836 | . 092 | . 288 | . 683 | . 565 | . 613 | . 143 | . 020 | . 324 | . 713 |  | . 539 | . 823 | . 867 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | -,793* | ,840" | ,882" | -,393* | -,711" | ,885* | -,871" | ,892* | ,400** | ,446** | -,828* | ,930** | . 100 | 1 | ,975* | ,983** |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 011 | . 000 | . 000 | . 000 | . 000 | . 010 | . 003 | . 000 | . 000 | . 539 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | -,858" | ,832" | ,883" | -. 256 | -,796" | ,940" | -,924" | ,917* | ,459" | ,531" | -,898** | ,921" | . 036 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 106 | . 000 | . 000 | . 000 | . 000 | . 003 | . 000 | . 000 | . 000 | . 823 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | -,760" | ,825** | ,860" | -,370* | -,726" | ,910* | -,903" | ,885* | ,474** | ,527* | -,872" | ,925* | . 027 | ,983** | ,966" | 1 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 017 | . 000 | . 000 | . 000 | . 000 | . 002 | . 000 | . 000 | . 000 | . 867 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| BE 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,497" | -,724" | -,747* | ,919** | -,765" | ,785" | -,632" | -,677" | -,722" | ,806" | -,476" | -,693" | -,779** | -,570" |
|  | Sig. (2-tailed) |  | . 005 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 008 | . 000 | . 000 | . 001 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -,497* | 1 | ,777" | -. 140 | -,623** | ,490" | -,555" | ,827** | ,667" | . 354 | -,588" | ,792" | ,442* | ,439* | ,506" |
|  | Sig. (2-tailed) | . 005 |  | . 000 | . 462 | . 000 | . 006 | . 001 | . 000 | . 000 | . 055 | . 001 | . 000 | . 015 | . 015 | . 004 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | -,724" | ,777* | 1 | . 200 | -,796* | ,587" | -,632" | ,736* | ,725" | ,506* | -,683" | ,709" | ,525* | ,551" | ,442* |
|  | Sig. (2-tailed) | . 000 | . 000 |  | . 289 | . 000 | . 001 | . 000 | . 000 | . 000 | . 004 | . 000 | . 000 | . 003 | . 002 | . 015 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,747* | -. 140 | . 200 | 1 | -,661* | ,621* | -,585" | . 168 | . 285 | ,665* | -,582" | . 041 | ,513" | ,633" | ,364* |
|  | Sig. (2-tailed) | . 000 | . 462 | . 289 |  | . 000 | . 000 | . 001 | . 375 | . 127 | . 000 | . 001 | . 828 | . 004 | . 000 | . 048 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,919" | -,623" | -,796" | -,661" | 1 | -,861" | ,876" | -,743** | -,721" | -,800" | ,906* | -,658* | -,717* | -,811** | -,636" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -,765* | ,490" | ,587* | ,621" | -,861" | 1 | -,987" | ,670" | ,635* | ,944* | -,986" | ,659" | ,828" | ,903* | ,847** |
|  | Sig. (2-tailed) | . 000 | . 006 | . 001 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | ,785" | -,555" | -,632" | -,585" | ,876** | -,987" | 1 | -,711" | -,685" | -,933* | ,981" | -,692" | -,792" | -,877** | -,827" |
|  | Sig. (2-tailed) | . 000 | . 001 | . 000 | . 001 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -,632" | ,827* | ,736" | . 168 | -,743* | ,670" | -,711" | 1 | ,739" | ,469** | -,757" | ,783" | ,658" | ,711" | ,706" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 375 | . 000 | . 000 | . 000 |  | . 000 | . 009 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | -,677" | ,667" | ,725" | . 285 | -,721" | ,635" | -,685" | ,739" | 1 | ,442* | -,707" | ,560" | ,715" | ,642" | ,652" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 127 | . 000 | . 000 | . 000 | . 000 |  | . 014 | . 000 | . 001 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -,722" | . 354 | ,506" | ,665* | -,800" | ,944" | -,933" | ,469" | ,442* | 1 | -,911" | ,541" | ,687" | ,802" | ,691" |
|  | Sig. (2-tailed) | . 000 | . 055 | . 004 | . 000 | . 000 | . 000 | . 000 | . 009 | . 014 |  | . 000 | . 002 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | ,806" | -,588" | -,683" | -,582" | ,906** | -,986" | ,981" | -,757" | -,707" | -,911" | 1 | -,702" | -,851" | -,917** | -,845" |
|  | Sig. (2-tailed) | . 000 | . 001 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | -,476" | ,792" | ,709" | . 041 | -,658** | ,659" | -,692" | ,783** | ,560" | ,541* | -,702" | 1 | ,423* | ,489" | ,528" |
|  | Sig. (2-tailed) | . 008 | . 000 | . 000 | . 828 | . 000 | . 000 | . 000 | . 000 | . 001 | . 002 | . 000 |  | . 020 | . 006 | . 003 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -,693* | ,442* | ,525" | ,513" | -,717** | ,828* | -,792" | ,658** | ,715" | ,687* | -,851" | ,423* | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 000 | . 015 | . 003 | . 004 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 020 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -,779" | ,439 ${ }^{\circ}$ | ,551" | ,633" | -,811* | ,903* | -,877" | ,711* | ,642" | ,802* | -,917" | ,489" | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 000 | . 015 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 006 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -,570" | ,506" | ,442* | ,364* | -,636" | ,847* | -,827" | ,706* | ,652" | ,691" | -,845" | ,528" | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 001 | . 004 | . 015 | . 048 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 003 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| CY 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | CY 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 27249.0 | 58795.0 | 48028.585 | 9504.7744 | L_E_area_Non_MFIs | 30 | 45955.0 | 58795.0 | 53107.433 | 3374.1732 |
| L1 | 41 | 41.5670\% | 47.4686\% | 44.766676\% | 1.6354323\% | L1 | 30 | 43.6411\% | 47.4686\% | 45.530852\% | .9912664\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 933.0 | 6200.0 | 3697.317 | 1576.3213 | L_EU_memb_Non_EMU_MFIs | 30 | 933.0 | 6200.0 | 3349.233 | 1646.8203 |
| L2 | 41 | .8591\% | 6.8460\% | 3.671589\% | 1.8480836\% | L2 | 30 | .8591\% | 6.0223\% | 2.884077\% | 1.4842297\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 860.0 | 3851.0 | 2425.000 | 688.8059 | L_EU_memb_Non_EMU_Non_MFls | 30 | 1767.0 | 3851.0 | 2672.867 | 425.5194 |
| L3 | 41 | 1.2864\% | 3.1411\% | 2.242197\% | .4739421\% | L3 | 30 | 1.4674\% | 3.1411\% | 2.295398\% | .3681259\% |
| L_Domestic_MFIs | 41 | 4269.0 | 12640.0 | 7429.512 | 1984.4067 | L_Domestic_MFIs | 30 | 4269.0 | 12640.0 | 7942.267 | 1976.2514 |
| L4 | 41 | 4.1467\% | 11.6386\% | 7.092820\% | 1.9450893\% | L4 | 30 | 4.1467\% | 11.6386\% | 6.799690\% | 1.6691555\% |
| L_Domestic_Non_MFIs | 41 | 26676.0 | 54298.0 | 45163.951 | 8276.5287 | L_Domestic_Non_MFIs | 30 | 43537.0 | 54298.0 | 49549.300 | 2894.5975 |
| L5 | 41 | 40.5845\% | 43.6960\% | 42.226718\% | .8865816\% | L5 | 30 | 41.1196\% | 43.6960\% | 42.489984\% | .7441375\% |
| Total loans (MFIs) | 41 | 7842.0 | 14673.0 | 11126.829 | 1745.3118 | Total loans (MFIs) | 30 | 7842.0 | 14673.0 | 11291.500 | 1909.1719 |
| Total loans (non-MFIs) | 41 | 54785.0 | 115481.0 | 95617.537 | 18297.0354 | Total loans (non-MFIs) | 30 | 92481.0 | 115481.0 | 105329.600 | 6292.3230 |
| TOTAL LOANS | 41 | 64200.0 | 129801.0 | 106744.366 | 18592.4855 | TOTAL LOANS | 30 | 102950.0 | 129801.0 | 116621.100 | 6693.5978 |
| D_E_area_MFls | 41 | 8705.0 | 72517.0 | 24891.585 | 15735.4125 | D_E_area_MFls | 30 | 8705.0 | 72517.0 | 28521.033 | 16526.8102 |
| D1 | 41 | 9.6722\% | 39.2408\% | 20.042176\% | 7.5928159\% | D1 | 30 | 9.6722\% | 39.2408\% | 21.378215\% | 8.2059002\% |
| D_E_area_Non_MFls | 41 | 27198.0 | 50166.0 | 39469.317 | 7071.7263 | D_E_area_Non_MFls | 30 | 34160.0 | 50166.0 | 41857.733 | 6268.7603 |
| D2 | 41 | 26.2078\% | 41.6344\% | 35.266544\% | 3.8864478\% | D2 | 30 | 26.2078\% | 41.6344\% | 34.344162\% | 4.0073279\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 314.0 | 4663.0 | 1577.073 | 1133.5352 | D_EU_memb_Non_EMU_MFIs | 30 | 314.0 | 4663.0 | 1417.333 | 1248.5225 |
| D3 | 41 | . $3523 \%$ | 3.0613\% | 1.367222\% | .8645101\% | D3 | 30 | . $3523 \%$ | 3.0613\% | 1.033894\% | .7333373\% |
| D_EU_memb_Non_EMU_Non_MFIs | 41 | 1354.0 | 2728.0 | 1766.195 | 407.8850 | D_EU_memb_Non_EMU_Non_MFIs | 30 | 1354.0 | 2678.0 | 1663.000 | 342.1072 |
| D4 | 41 | .8117\% | 3.0379\% | 1.647101\% | .5800304\% | D4 | 30 | .8117\% | 1.8415\% | 1.378277\% | .2856624\% |
| D_Domestic_MFls | 41 | 3426.0 | 18196.0 | 10129.707 | 4182.6399 | D_Domestic_MFls | 30 | 7459.0 | 18196.0 | 12221.067 | 2602.5240 |
| D5 | 41 | 4.0222\% | 14.2403\% | 8.784965\% | 3.2208006\% | D5 | 30 | 6.5141\% | 14.2403\% | 10.170279\% | 2.6089455\% |
| D_Domestic_Non_MFls | 41 | 25826.0 | 45382.0 | 36718.073 | 5934.2739 | D_Domestic_Non_MFls | 30 | 32015.0 | 45382.0 | 38603.700 | 5200.8226 |
| D6 | 41 | 24.3604\% | 38.3133\% | 32.891992\% | 3.6192020\% | D6 | 30 | 24.3604\% | 38.3133\% | 31.695171\% | 3.3844744\% |
| Total deposits (MFIs) | 41 | 14223.0 | 89850.0 | 36598.366 | 18530.3001 | Total deposits (MFIs) | 30 | 16585.0 | 89850.0 | 42159.433 | 18120.8928 |
| Total deposits (non-MFIs) | 41 | 54437.0 | 96430.0 | 77953.585 | 13003.5717 | Total deposits (non-MFIs) | 30 | 67705.0 | 96430.0 | 82124.433 | 11597.8920 |
| TOTAL DEPOSITS | 41 | 68660.0 | 184800.0 | 114551.951 | 29586.2012 | TOTAL DEPOSITS | 30 | 89124.0 | 184800.0 | 124283.867 | 27139.1740 |
| LTD gap | 41 | 9471 | 50598 | 28790.78 | 13357.847 | LTD gap | 30 | 19490 | 50598 | 34496.67 | 10798.448 |
| LTD | 41 | 1.1646464 | 1.7334191 | 1.3776733 | 0.1993251 | LTD | 30 | 1.2066680 | 1.7334191 | 1.4441440 | 0.1936857 |
| GLTDFq | 40 | -5.9717825 | 44.3243243 | 2.4496476 | 7.8487217 | GLTDFq | 30 | $-5.9717825$ | 44.3243243 | 2.4574298 | 8.5000815 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |



| CY 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,489" | -. 316 | -,454* | ,818" | -,432* | . 225 | -,474" | ,372* | ,777* | . 255 | ,602" | -. 254 | -,385* | -. 310 |
|  | Sig. (2-tailed) |  | . 006 | . 089 | . 012 | . 000 | . 017 | . 233 | . 008 | . 043 | . 000 | . 174 | . 000 | . 176 | . 036 | . 095 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -,489" | 1 | ,703" | -,518" | -,529" | ,913" | -,818" | ,740" | -,673* | -,631" | -,863" | -,877" | ,780" | ,896" | ,777" |
|  | Sig. (2-tailed) | . 006 |  | . 000 | . 003 | . 003 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | -. 316 | ,703** | 1 | -,474" | -,412* | ,759" | -,750" | ,589" | -,550" | -. 349 | -,764** | -,536" | ,765" | ,671" | ,676" |
|  | Sig. (2-tailed) | . 089 | . 000 |  | . 008 | . 024 | . 000 | . 000 | . 001 | . 002 | . 058 | . 000 | . 002 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,454* | -,518" | -,474" | 1 | -,370* | -,511" | ,599" | -. 297 | ,401* | -. 051 | ,600" | . 314 | -,609" | -,546** | -,581** |
|  | Sig. (2-tailed) | . 012 | . 003 | . 008 |  | . 044 | . 004 | . 000 | . 111 | . 028 | . 791 | . 000 | . 091 | . 000 | . 002 | . 001 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,818" | -,529" | -,412* | -,370* | 1 | -,474" | . 359 | -,471" | . 219 | ,509" | ,415* | ,509" | -. 230 | -,381* | -. 169 |
|  | Sig. (2-tailed) | . 000 | . 003 | . 024 | . 044 |  | . 008 | . 052 | . 009 | . 245 | . 004 | . 023 | . 004 | . 221 | . 038 | . 372 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -,432* | ,913** | ,759" | -,511" | -,474** | 1 | -,947" | ,840" | -,831* | -,596** | -,956** | -,776" | ,741" | ,781" | ,699" |
|  | Sig. (2-tailed) | . 017 | . 000 | . 000 | . 004 | . 008 |  | . 000 | . 000 | . 000 | . 001 | . 000 | . 000 | , 000 | . 000 | , 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | . 225 | -,818" | -,750" | ,599" | . 359 | -,947" | 1 | -,812" | ,747" | . 329 | ,970" | ,572" | -,625" | -,641" | -,548" |
|  | Sig. (2-tailed) | . 233 | . 000 | . 000 | . 000 | . 052 | . 000 |  | . 000 | . 000 | . 075 | . 000 | . 001 | . 000 | . 000 | . 002 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -,474" | ,740" | ,589" | -. 297 | -,471" | ,840" | -,812" | 1 | -,850" | -,595* | -,761** | -,602" | ,504" | ,556" | ,469" |
|  | Sig. (2-tailed) | . 008 | . 000 | . 001 | . 111 | . 009 | . 000 | . 000 |  | . 000 | . 001 | . 000 | . 000 | . 004 | . 001 | . 009 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | ,372* | -,673" | -,550" | ,401* | . 219 | -,831" | ,747" | -,850" | 1 | ,687* | ,700" | ,617" | -,611" | -,578" | -,600" |
|  | Sig. (2-tailed) | . 043 | . 000 | . 002 | . 028 | . 245 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 001 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | ,777" | -,631" | -. 349 | -. 051 | ,509" | -,596" | . 329 | -,595" | ,687* | 1 | . 356 | ,781" | -,504" | -,584" | -,617" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 058 | . 791 | . 004 | . 001 | . 075 | . 001 | . 000 |  | . 053 | . 000 | . 005 | . 001 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | . 255 | -,863* | -,764" | ,600" | ,415* | -,956" | ,970** | -,761" | ,700" | . 356 | 1 | ,681" | -,726" | -,756" | -,621" |
|  | Sig. (2-tailed) | . 174 | . 000 | . 000 | . 000 | . 023 | . 000 | . 000 | . 000 | . 000 | . 053 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | ,602" | -,877* | -,536" | . 314 | ,509" | -,776" | ,572** | -,602" | ,617** | ,781" | ,681" | 1 | -,785" | -,911" | -,784" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 002 | . 091 | . 004 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -. 254 | ,780" | ,765" | -,609" | -. 230 | ,741" | -,625* | ,504" | -,611* | -,504" | -,726* | -,785" | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 176 | . 000 | . 000 | . 000 | . 221 | . 000 | . 000 | . 004 | . 000 | . 005 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -,385* | ,896" | ,671" | -,546" | -,381* | ,781" | -,641" | ,556" | -,578* | -,584" | -,756* | -,911" | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 036 | . 000 | . 000 | . 002 | . 038 | . 000 | . 000 | . 001 | . 001 | . 001 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -. 310 | ,777" | ,676" | -,581" | -. 169 | ,699" | -,548" | ,469" | -,600" | -,617" | -,621" | -,784" | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 095 | . 000 | . 000 | . 001 | . 372 | . 000 | . 002 | . 009 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| DE 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | DE 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 2743544.0 | 3011143.0 | 2898578.366 | 72317.7751 | L_E_area_Non_MFIs | 30 | 2865553.0 | 3011143.0 | 2931008.600 | 45044.9261 |
| L1 | 41 | 38.3761\% | 40.9232\% | 39.711790\% | .7727113\% | L1 | 30 | 38.6816\% | 40.9232\% | 40.054312\% | .5866161\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 197725.0 | 458413.0 | 316754.878 | 80300.4968 | L_EU_memb_Non_EMU_MFIs | 30 | 197725.0 | 363577.0 | 274965.433 | 45092.8807 |
| L2 | 41 | 2.7474\% | 6.3493\% | 4.340443\% | 1.1087320\% | L2 | 30 | 2.7474\% | 4.9157\% | 3.752552\% | .5854052\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 72244.0 | 130943.0 | 91185.024 | 17159.6074 | L_EU_memb_Non_EMU_Non_MFls | 30 | 72244.0 | 90373.0 | 81673.133 | 4656.2331 |
| L3 | 41 | .9676\% | 1.7855\% | 1.250939\% | .2437363\% | L3 | 30 | .9676\% | 1.2522\% | 1.116777\% | .0744402\% |
| L_Domestic_MFIs | 41 | 1111723.0 | 1571306.0 | 1270672.902 | 102988.8958 | L_Domestic_MFIs | 30 | 1147194.0 | 1571306.0 | 1286263.300 | 102323.8351 |
| L4 | 41 | 15.7009\% | 20.3290\% | 17.384788\% | .9970692\% | L4 | 30 | 16.2605\% | 20.3290\% | 17.552922\% | .9831709\% |
| L_Domestic_Non_MFIs | 41 | 2632189.0 | 2818352.0 | 2723102.512 | 53362.8849 | L_Domestic_Non_MFIs | 30 | 2682440.0 | 2818352.0 | 2745712.733 | 41830.9912 |
| L5 | 41 | 35.8180\% | 38.4492\% | 37.312040\% | .7196397\% | L5 | 30 | 36.1959\% | 38.4492\% | 37.523437\% | .6315247\% |
| Total loans (MFIs) | 41 | 1378636.0 | 1854714.0 | 1587427.780 | 126956.3248 | Total loans (MFIs) | 30 | 1378636.0 | 1854714.0 | 1561228.733 | 125538.5733 |
| Total loans (non-MFIs) | 41 | 5481769.0 | 5912209.0 | 5712865.902 | 112516.3653 | Total loans (non-MFIs) | 30 | 5635116.0 | 5912209.0 | 5758394.467 | 85040.4560 |
| TOTAL LOANS | 41 | 7039766.0 | 7729394.0 | 7300293.683 | 179996.9906 | TOTAL LOANS | 30 | 7055079.0 | 7729394.0 | 7319623.200 | 179754.7982 |
| D_E_area_MFls | 41 | 1241710.0 | 1832660.0 | 1500964.683 | 172723.0764 | D_E_area_MFls | 30 | 1241710.0 | 1695310.0 | 1424470.867 | 126439.6812 |
| D1 | 41 | 13.4821\% | 20.1807\% | 16.869504\% | 2.2107978\% | D1 | 30 | 13.4821\% | 18.5252\% | 15.751815\% | 1.3826558\% |
| D_E_area_Non_MFls | 41 | 2416386.0 | 3353416.0 | 2978080.439 | 268458.9483 | D_E_area_Non_MFls | 30 | 2890493.0 | 3353416.0 | 3115372.267 | 137985.0921 |
| D2 | 41 | 30.0574\% | 36.4103\% | 33.342185\% | 2.2312104\% | D2 | 30 | 31.6424\% | 36.4103\% | 34.448912\% | 1.4602040\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 136378.0 | 366127.0 | 231097.732 | 49411.8228 | D_EU_memb_Non_EMU_MFIs | 30 | 136378.0 | 366127.0 | 224890.867 | 55327.5180 |
| D3 | 41 | 1.5251\% | 3.9193\% | 2.590239\% | .5348711\% | D3 | 30 | 1.5251\% | 3.9193\% | 2.481106\% | .5816933\% |
| D_EU_memb_Non_EMU_Non_MFIs | 41 | 37743.0 | 99718.0 | 64086.854 | 16347.3755 | D_EU_memb_Non_EMU_Non_MFIs | 30 | 37743.0 | 72754.0 | 56625.467 | 9934.7949 |
| D4 | 41 | . $4147 \%$ | 1.2474\% | .724441\% | .2113704\% | D4 | 30 | .4147\% | .8194\% | .626475\% | .1118698\% |
| D_Domestic_MFls | 41 | 1039135.0 | 1582968.0 | 1250636.463 | 148653.3465 | D_Domestic_MFls | 30 | 1039135.0 | 1468968.0 | 1190481.567 | 117668.8673 |
| D5 | 41 | 11.2826\% | 16.8920\% | 14.052275\% | 1.8501131\% | D5 | 30 | 11.2826\% | 15.9263\% | 13.164324\% | 1.2879257\% |
| D_Domestic_Non_MFls | 41 | 2342763.0 | 3260430.0 | 2895913.976 | 264175.6423 | D_Domestic_Non_MFls | 30 | 2810618.0 | 3260430.0 | 3032031.900 | 133079.4622 |
| D6 | 41 | 29.1416\% | 35.4407\% | 32.421356\% | 2.2053990\% | D6 | 30 | 30.8112\% | 35.4407\% | 33.527369\% | 1.4073867\% |
| Total deposits (MFIs) | 41 | 2524133 | 3671935 | 2982698.88 | 344498.098 | Total deposits (MFIs) | 30 | 2524133 | 3420722 | 2839843.30 | 269592.440 |
| Total deposits (non-MFIs) | 41 | 4854561 | 6672134 | 5938081.27 | 521117.934 | Total deposits (non-MFIs) | 30 | 5750518 | 6672134 | 6204029.63 | 272307.131 |
| TOTAL DEPOSITS | 41 | 7994057.0 | 9371138.0 | 8920780.146 | 334972.8063 | TOTAL DEPOSITS | 30 | 8854262.0 | 9355725.0 | 9043872.933 | 143953.4684 |
| LTD gap | 41 | 624101 | 2215966 | 1362212.41 | 502294.539 | LTD gap | 30 | 624101 | 1643835 | 1115593.57 | 329388.173 |
| LTD | 41 | 1.0949547 | 1.4564709 | 1.2385137 | 0.1095848 | LTD | 30 | 1.0949547 | 1.2857627 | 1.1820727 | 0.0602718 |
| GLTDFq | 40 | -11.6772567 | 2.8611937 | -0.0065468 | 2.3443816 | GLTDFq | 30 | -11.6772567 | 2.8611937 | -0.0933087 | 2.6816134 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| DE 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,840" | -,634" | -,344* | ,912" | -,825" | ,856" | -,719" | -,513" | -,800" | ,856" | -,839" | -. 067 | -,808" |  |  |
|  | Sig. (2-tailed) |  | . 000 | . 000 | . 027 | . 000 | . 000 | . 000 | . 000 | . 001 | . 000 | . 000 | . 000 | . 681 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | -,840" | 1 | ,836" | -. 184 | -,667* | ,981" | -,978* | ,492" | ,662" | ,959" | -,981" | ,963" | -. 047 | ,935" | ,959" | ,942" |
|  | Sig. (2-tailed) | . 000 |  | . 000 | . 251 | . 000 | . 000 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 | . 775 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | -,634" | ,836" | 1 | -,410" | -,378* | ,792" | -,765" | . 222 | ,842" | ,742" | -,776" | ,784" | . 077 | ,908" | ,848" | ,847" |
|  | Sig. (2-tailed) | . 000 | . 000 |  | . 008 | . 015 | . 000 | . 000 | . 163 | . 000 | . 000 | . 000 | . 000 | . 636 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | $-, 344^{*}$ | -. 184 | -,410" | 1 | -,594* | -. 163 | . 101 | ,474* | -,403" | -. 144 | . 106 | -. 161 | . 111 | -. 191 | -. 126 | -. 128 |
|  | Sig. (2-tailed) | . 027 | . 251 | . 008 |  | . 000 | . 308 | . 532 | . 002 | . 009 | . 369 | . 508 | . 314 | . 496 | . 233 | . 433 | . 425 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,912" | -,667" | -,378* | -,594" | 1 | -,667" | ,708" | -,719** | -. 196 | -,670" | ,707* | -,626" | -. 034 | -,616" | -,675" | -,673" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 015 | . 000 |  | . 000 | . 000 | . 000 | . 220 | . 000 | . 000 | . 000 | . 837 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | -,825" | ,981" | ,792" | -. 163 | -,667* | 1 | -,995* | ,450" | ,623" | ,990" | -,996** | ,964** | -. 077 | ,887" | ,921" | ,906" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 308 | . 000 |  | . 000 | . 003 | . 000 | . 000 | . 000 | . 000 | . 636 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | ,856" | -,978* | -,765" | . 101 | ,708" | -,995" | 1 | -,528* | -,605" | -,987" | 1,000" | -,970" | . 080 | -,874" | -,918" | -,896" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 532 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 622 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -,719" | ,492" | . 222 | ,474" | -,719" | ,450" | -,528* | 1 | . 198 | ,412" | -,524" | ,558" | . 009 | ,428" | ,540" | ,448" |
|  | Sig. (2-tailed) | . 000 | . 001 | . 163 | . 002 | . 000 | . 003 | . 000 |  | . 213 | . 007 | . 000 | . 000 | . 954 | . 005 | . 000 | . 003 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | -,513" | ,662" | ,842" | -,403" | -. 196 | ,623** | -,605" | . 198 | 1 | ,549" | -,616" | ,692" | -. 066 | ,701" | ,663" | ,615" |
|  | Sig. (2-tailed) | . 001 | . 000 | . 000 | . 009 | . 220 | . 000 | . 000 | . 213 |  | . 000 | . 000 | . 000 | . 687 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -,800" | ,959" | ,742" | -. 144 | -,670" | ,990" | -,987* | ,412" | ,549" | 1 | -,986" | ,935" | -. 091 | ,842" | ,875" | ,874" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 369 | . 000 | . 000 | . 000 | . 007 | . 000 |  | . 000 | . 000 | . 576 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | ,856** | -,981* | -,776* | . 106 | ,707* | -,996" | 1,000** | -,524** | -,616" | -,986" | 1 | -,971* | . 077 | -,882" | -,923** | -,903* |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 508 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 639 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | -,839" | ,963" | ,784** | -. 161 | -,626" | ,964** | -,970" | ,558** | ,692" | ,935* | -,971" | 1 | -. 022 | ,881" | ,935" | ,883" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 314 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 891 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | -. 067 | -. 047 | . 077 | . 111 | -. 034 | -. 077 | . 080 | . 009 | -. 066 | -. 091 | . 077 | -. 022 | 1 | . 049 | . 028 | . 046 |
|  | Sig. (2-tailed) | . 681 | . 775 | . 636 | . 496 | . 837 | . 636 | . 622 | . 954 | . 687 | . 576 | . 639 | . 891 |  | . 765 | . 865 | . 776 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | -,808" | ,935" | ,908" | -. 191 | -,616* | ,887" | -,874" | ,428" | ,701" | ,842" | -,882" | ,881" | . 049 | 1 | ,975" | ,983" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 233 | . 000 | . 000 | . 000 | . 005 | . 000 | . 000 | . 000 | . 000 | . 765 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | -,852" | ,959" | ,848" | -. 126 | -,675" | ,921" | -,918* | ,540" | ,663" | ,875" | -,923" | ,935" | . 028 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 433 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 865 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | -,826" | ,942" | ,847" | -. 128 | -,673" | ,906** | -,896* | ,448* | ,615* | ,874* | -,903* | ,883** | . 046 | ,983** | ,966" | 1 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 425 | . 000 | . 000 | . 000 | . 003 | . 000 | . 000 | . 000 | . 000 | . 776 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| DE 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,603" | . 304 | -,898" | ,992** | -,578* | ,669" | -,763" | . 010 | -,524" | ,668" | -,751" | -,579" | -,700" | -,544" |
|  | Sig. (2-tailed) |  | . 000 | . 103 | . 000 | . 000 | . 001 | . 000 | . 000 | . 958 | . 003 | . 000 | . 000 | . 001 | . 000 | . 002 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -,603* | 1 | . 010 | . 198 | -,677* | ,961" | -,967* | ,433* | -. 154 | ,939" | -,967" | ,947* | ,779" | ,832" | ,788" |
|  | Sig. (2-tailed) | . 000 |  | . 959 | . 293 | . 000 | . 000 | . 000 | . 017 | . 416 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | . 304 | . 010 | 1 | -,454* | . 298 | . 073 | -. 002 | -,463" | ,475" | . 105 | -. 012 | -. 178 | -. 242 | -. 359 | -. 308 |
|  | Sig. (2-tailed) | . 103 | . 959 |  | . 012 | . 110 | . 701 | . 992 | . 010 | . 008 | . 582 | . 951 | . 348 | . 198 | . 052 | . 097 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,898* | . 198 | -,454* | 1 | -,853** | . 185 | -. 297 | ,728" | . 017 | . 130 | -. 295 | ,421* | . 315 | ,439* | . 274 |
|  | Sig. (2-tailed) | . 000 | . 293 | . 012 |  | . 000 | . 329 | . 111 | . 000 | . 929 | . 492 | . 113 | . 021 | . 090 | . 015 | . 143 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,992" | -,677** | . 298 | -,853* | 1 | -,650" | ,737** | -,771" | . 051 | -,599" | ,737* | -,814* | -,647* | -,763* | -,615** |
|  | Sig. (2-tailed) | . 000 | . 000 | . 110 | . 000 |  | . 000 | . 000 | . 000 | . 789 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -,578* | ,961" | . 073 | . 185 | -,650" | 1 | -,986** | . 327 | -. 159 | ,988* | -,986" | ,928* | ,739" | ,772" | ,751" |
|  | Sig. (2-tailed) | . 001 | . 000 | . 701 | . 329 | . 000 |  | . 000 | . 077 | . 401 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | ,669" | -,967* | -. 002 | -. 297 | ,737** | -,986* | 1 | -,471" | . 167 | -,969" | 1,000" | -,962" | -,750" | -,810" | -,755" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 992 | . 111 | . 000 | . 000 |  | . 009 | . 377 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -,763* | ,433* | -,463" | ,728* | -,771* | . 327 | -,471* | 1 | -. 172 | . 257 | -,468" | ,611** | ,495" | ,644" | ,446* |
|  | Sig. (2-tailed) | . 000 | . 017 | . 010 | . 000 | . 000 | . 077 | . 009 |  | . 363 | . 171 | . 009 | . 000 | . 005 | . 000 | . 014 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | . 010 | -. 154 | ,475" | . 017 | . 051 | -. 159 | . 167 | -. 172 | 1 | -. 201 | . 158 | -. 224 | -. 228 | -. 303 | -,380 ${ }^{\circ}$ |
|  | Sig. (2-tailed) | . 958 | . 416 | . 008 | . 929 | . 789 | .401 | . 377 | . 363 |  | . 288 | . 404 | . 234 | . 225 | . 103 | . 038 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -,524* | ,939" | . 105 | . 130 | -,599" | ,988" | -,969" | . 257 | -. 201 | 1 | -,970" | ,888* | ,674" | ,708" | ,709" |
|  | Sig. (2-tailed) | . 003 | . 000 | . 582 | . 492 | . 000 | . 000 | . 000 | . 171 | . 288 |  | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | ,668" | -,967** | -. 012 | -. 295 | ,737** | -,986* | 1,000* | -,468" | . 158 | -,970" | 1 | -,960" | -,751" | -,807" | -,757" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 951 | . 113 | . 000 | . 000 | . 000 | . 009 | . 404 | . 000 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | -,751" | ,947* | -. 178 | ,421* | -,814** | ,928** | -,962** | ,611" | -. 224 | ,888** | -,960" | 1 | ,824" | ,920" | ,805" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 348 | . 021 | . 000 | . 000 | . 000 | . 000 | . 234 | . 000 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -,579* | ,779" | -. 242 | . 315 | -,647* | ,739" | -,750" | ,495* | -. 228 | ,674* | -,751" | ,824* | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 001 | . 000 | . 198 | . 090 | . 000 | . 000 | . 000 | . 005 | . 225 | . 000 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -,700" | ,832" | -. 359 | ,439 ${ }^{\circ}$ | -,763* | ,772" | -,810" | ,644* | -. 303 | ,708* | -,807" | ,920" | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 052 | . 015 | . 000 | . 000 | . 000 | . 000 | . 103 | . 000 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -,544* | ,788* | -. 308 | . 274 | -,615* | ,751* | -,755* | ,446* | -,380 | ,709" | -,757" | ,805* | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 002 | . 000 | . 097 | . 143 | . 000 | . 000 | . 000 | . 014 | . 038 | . 000 | . 000 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| EE 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | EE 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 34 | 13798.0 | 17246.0 | 14984.853 | 945.4461 | L_E_area_Non_MFIs | 30 | 13798.0 | 17246.0 | 14871.033 | 943.8011 |
| L1 | 34 | 43.9573\% | 46.3546\% | 45.173217\% | .6352324\% | L1 | 30 | 43.9573\% | 46.3546\% | 45.108859\% | .6491179\% |
| L_EU_memb_Non_EMU_MFIs | 34 | 457.0 | 2982.0 | 1826.559 | 748.4805 | L_EU_memb_Non_EMU_MFIs | 30 | 457.0 | 2982.0 | 1880.367 | 781.9421 |
| L2 | 34 | 1.3148\% | 9.4171\% | 5.574606\% | 2.4131842\% | L2 | 30 | 1.3148\% | 9.4171\% | 5.770389\% | 2.5060815\% |
| L_EU_memb_Non_EMU_Non_MFIs | 34 | 18.0 | 196.0 | 132.471 | 69.1885 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 18.0 | 196.0 | 127.000 | 71.9923 |
| L3 | 34 | .0535\% | .5981\% | .406557\% | .2156308\% | L3 | 30 | .0535\% | .5981\% | . $394050 \%$ | .2269456\% |
| L_Domestic_MFIs | 34 | 344.0 | 3386.0 | 1385.088 | 755.1283 | L_Domestic_MFIs | 30 | 344.0 | 3386.0 | 1362.133 | 801.3975 |
| L4 | 34 | 1.0512\% | 9.3528\% | 4.094800\% | 2.0588657\% | L4 | 30 | 1.0512\% | 9.3528\% | 4.042607\% | 2.1879932\% |
| L_Domestic_Non_MFIs | 34 | 13713.0 | 16976.0 | 14842.118 | 895.5246 | L_Domestic_Non_MFIs | 30 | 13713.0 | 16976.0 | 14728.000 | 886.7656 |
| L5 | 34 | 43.2507\% | 45.9504\% | 44.750819\% | .6792302\% | L5 | 30 | 43.2507\% | 45.9504\% | 44.684095\% | .6961779\% |
| Total loans (MFIs) | 34 | 2268.0 | 4471.0 | 3211.647 | 547.5408 | Total loans (MFIs) | 30 | 2268.0 | 4471.0 | 3242.500 | 576.3493 |
| Total loans (non-MFIs) | 34 | 27681.0 | 34250.0 | 29959.441 | 1815.0986 | Total loans (non-MFIs) | 30 | 27681.0 | 34250.0 | 29726.033 | 1794.9141 |
| TOTAL LOANS | 34 | 30902.0 | 38678.0 | 33171.088 | 2038.8358 | TOTAL LOANS | 30 | 30902.0 | 38678.0 | 32968.533 | 2077.9073 |
| D_E_area_MFls | 34 | 423.0 | 2512.0 | 1981.412 | 508.7422 | D_E_area_MFls | 30 | 423.0 | 2512.0 | 1969.067 | 539.1795 |
| D1 | 34 | 1.2964\% | 10.7003\% | 7.935043\% | 2.3649999\% | D1 | 30 | 1.2964\% | 10.7003\% | 7.836761\% | 2.5007222\% |
| D_E_area_Non_MFls | 34 | 7904.0 | 14495.0 | 10416.794 | 2011.3657 | D_E_area_Non_MFls | 30 | 8143.0 | 14495.0 | 10727.500 | 1937.3155 |
| D2 | 34 | 33.4196\% | 45.1229\% | 40.241720\% | 4.1785142\% | D2 | 30 | 34.1669\% | 45.1229\% | 41.095367\% | 3.6676534\% |
| D_EU_memb_Non_EMU_MFIs | 34 | 896.0 | 5796.0 | 2868.824 | 1757.7732 | D_EU_memb_Non_EMU_MFIs | 30 | 896.0 | 5267.0 | 2502.033 | 1526.6807 |
| D3 | 34 | 3.1565\% | 24.0402\% | 11.488816\% | 7.4442435\% | D3 | 30 | 3.1565\% | 22.0283\% | 9.885012\% | 6.3568809\% |
| D_EU_memb_Non_EMU_Non_MFIs | 34 | 125.0 | 579.0 | 334.235 | 152.6869 | D_EU_memb_Non_EMU_Non_MFIs | 30 | 125.0 | 579.0 | 359.367 | 144.7808 |
| D4 | 34 | .5285\% | 2.1616\% | 1.273287\% | .5142622\% | D4 | 30 | .5285\% | 2.1616\% | 1.361789\% | .4815651\% |
| D_Domestic_MFls | 34 | 52.0 | 216.0 | 99.176 | 40.4209 | D_Domestic_MFls | 30 | 52.0 | 216.0 | 98.867 | 41.9538 |
| D5 | 34 | .1979\% | .9201\% | . $389732 \%$ | .1714145\% | D5 | 30 | .1979\% | .9201\% | . $384822 \%$ | .1768274\% |
| D_Domestic_Non_MFls | 34 | 7659.0 | 13713.0 | 10006.618 | 1879.6687 | D_Domestic_Non_MFls | 30 | 7936.0 | 13713.0 | 10291.400 | 1818.0449 |
| D6 | 34 | 32.6635\% | 43.1349\% | 38.671403\% | 3.7863951\% | D6 | 30 | 33.2984\% | 43.1349\% | 39.436250\% | 3.3413242\% |
| Total deposits (MFIs) | 34 | 2833.0 | 8091.0 | 4949.412 | 1837.6977 | Total deposits (MFIs) | 30 | 2833.0 | 7588.0 | 4569.967 | 1603.8099 |
| Total deposits (non-MFIs) | 34 | 15701.0 | 28577.0 | 20757.647 | 4022.5631 | Total deposits (non-MFIs) | 30 | 16245.0 | 28577.0 | 21378.267 | 3875.3861 |
| TOTAL DEPOSITS | 34 | 23151.0 | 32630.0 | 25707.059 | 2744.4447 | TOTAL DEPOSITS | 30 | 23151.0 | 32630.0 | 25948.233 | 2835.5490 |
| LTD gap | 34 | 7661.0 | 18915.0 | 12413.441 | 3779.9212 | LTD gap | 30 | 7661.0 | 18332.0 | 11590.267 | 3206.1241 |
| LTD | 34 | 1.3003489 | 2.1647885 | 1.6500188 | 0.3055966 | LTD | 30 | 1.3003489 | 2.1284703 | 1.5827967 | 0.2579170 |
| GLTDFq | 33 | -118.6666667 | 55.8888889 | -2.6204086 | 24.8889532 | GLTDFq | 30 | -7.2280702 | 16.6250000 | 0.8004772 | 4.3660270 |
| Valid N (listwise) | 33 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| EE 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,583" | . 298 | . 026 | ,963* | . 333 | -,707" | ,686" | -,536" | . 128 | -,710" | ,666" | -. 159 | ,371* | ,409* | ,424* |
|  | Sig. (2-tailed) |  | . 000 | . 087 | . 883 | . 000 | . 055 | . 000 | . 000 | . 001 | . 469 | . 000 | . 000 | . 377 | . 031 | . 016 | . 012 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| L2 | Pearson Correlation | -,583" | 1 | -. 079 | -,813" | -,517" | . 193 | ,479" | -,593" | . 307 | . 201 | ,466" | $-, 419^{*}$ | . 166 | -. 193 | -. 190 | -. 197 |
|  | Sig. (2-tailed) | . 000 |  | . 658 | . 000 | . 002 | . 274 | . 004 | . 000 | . 077 | . 253 | . 006 | . 014 | . 355 | . 274 | . 282 | . 265 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| L3 | Pearson Correlation | . 298 | -. 079 | 1 | -. 280 | ,532" | ,758** | -,615** | ,448" | -,484* | . 055 | -,613" | ,633** | -. 129 | ,360* | ,572" | ,389* |
|  | Sig. (2-tailed) | . 087 | . 658 |  | . 109 | . 001 | . 000 | . 000 | . 008 | . 004 | . 757 | . 000 | . 000 | . 475 | . 036 | . 000 | . 023 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| L4 | Pearson Correlation | . 026 | -,813" | -. 280 | 1 | -. 077 | -,573* | -. 030 | . 210 | . 040 | -. 327 | -. 012 | -. 020 | -. 075 | -. 060 | -. 126 | -. 092 |
|  | Sig. (2-tailed) | . 883 | . 000 | . 109 |  | . 665 | . 000 | . 868 | . 234 | . 821 | . 059 | . 947 | . 910 | . 677 | . 738 | . 476 | . 604 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| L5 | Pearson Correlation | ,963" | -,517" | ,532" | -. 077 | 1 | ,500" | -,757" | ,688" | -,559" | . 138 | -,759" | ,726" | -. 173 | ,405* | ,494" | ,458" |
|  | Sig. (2-tailed) | . 000 | . 002 | . 001 | . 665 |  | . 003 | . 000 | . 000 | . 001 | . 437 | . 000 | . 000 | . 336 | . 017 | . 003 | . 006 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| D1 | Pearson Correlation | . 333 | . 193 | ,758* | -,573" | ,500" | 1 | -,533" | . 278 | -,407* | . 291 | -,540" | ,558" | -. 142 | . 326 | ,495" | ,381* |
|  | Sig. (2-tailed) | . 055 | . 274 | . 000 | . 000 | . 003 |  | . 001 | . 112 | . 017 | . 094 | . 001 | . 001 | . 431 | . 060 | . 003 | . 026 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| D2 | Pearson Correlation | -,707* | ,479" | -,615" | -. 030 | -,757" | -,533" | 1 | -,960" | ,886" | -. 052 | ,999"' | -,989" | . 278 | -,698" | -,801" | -,757" |
|  | Sig. (2-tailed) | . 000 | . 004 | . 000 | . 868 | . 000 | . 001 |  | . 000 | . 000 | . 769 | . 000 | . 000 | . 117 | . 000 | . 000 | . 000 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| D3 | Pearson Correlation | ,686" | -,593" | ,448** | . 210 | ,688" | . 278 | -,960" | 1 | -,888** | -. 036 | -,958" | ,940" | -. 265 | ,679" | ,745" | ,730" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 008 | . 234 | . 000 | . 112 | . 000 |  | . 000 | . 841 | . 000 | . 000 | . 136 | . 000 | . 000 | . 000 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| D4 | Pearson Correlation | -,536" | . 307 | -,484" | . 040 | -,559" | ${ }^{-, 407}$ | ,886" | -,888" | 1 | -. 199 | ,895" | -,890" | . 194 | -,610" | -,724* | -,680" |
|  | Sig. (2-tailed) | . 001 | . 077 | . 004 | . 821 | . 001 | . 017 | . 000 | . 000 |  | . 259 | . 000 | . 000 | . 279 | . 000 | . 000 | . 000 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| D5 | Pearson Correlation | . 128 | . 201 | . 055 | -. 327 | . 138 | . 291 | -. 052 | -. 036 | -. 199 | 1 | -. 072 | . 056 | . 059 | . 207 | . 224 | . 213 |
|  | Sig. (2-tailed) | . 469 | . 253 | . 757 | . 059 | . 437 | . 094 | . 769 | . 841 | . 259 |  | . 685 | . 753 | . 743 | . 240 | . 202 | . 226 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| D6 | Pearson Correlation | -,710" | ,466" | -,613* | -. 012 | -,759" | -,540" | ,999** | -,958* | ,895** | -. 072 | 1 | -,987** | . 273 | -,695" | -,801* | -,755* |
|  | Sig. (2-tailed) | . 000 | . 006 | . 000 | . 947 | . 000 | . 001 | . 000 | . 000 | . 000 | . 685 |  | . 000 | . 125 | . 000 | . 000 | . 000 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| LTD | Pearson Correlation | ,666" | -,419* | ,633" | -. 020 | ,726" | ,558** | -,989" | ,940" | -,890" | . 056 | -,987" | 1 | -. 283 | ,742" | ,845" | ,803" |
|  | Sig. (2-tailed) | . 000 | . 014 | . 000 | . 910 | . 000 | . 001 | . 000 | . 000 | . 000 | . 753 | . 000 |  | . 111 | . 000 | . 000 | . 000 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| GLTDFq | Pearson Correlation | -. 159 | . 166 | -. 129 | -. 075 | -. 173 | -. 142 | . 278 | -. 265 | . 194 | . 059 | . 273 | -. 283 | 1 | . 073 | -. 021 | -. 076 |
|  | Sig. (2-tailed) | . 377 | . 355 | . 475 | . 677 | . 336 | . 431 | . 117 | . 136 | . 279 | . 743 | . 125 | . 111 |  | . 685 | . 909 | . 674 |
|  | N | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |
| ECB_IR_Deposit | Pearson Correlation | ,371* | -. 193 | ,360* | -. 060 | ,405* | . 326 | -,698" | ,679" | -,610" | . 207 | -,695" | ,742* | . 073 | 1 | ,954" | ,978" |
|  | Sig. (2-tailed) | . 031 | . 274 | . 036 | . 738 | . 017 | . 060 | . 000 | . 000 | . 000 | . 240 | . 000 | . 000 | . 685 |  | . 000 | . 000 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| ECB_IR_Loans | Pearson Correlation | ,409* | -. 190 | ,572" | -. 126 | ,494" | ,495" | -,801" | ,745" | -,724" | . 224 | -,801" | ,845" | -. 021 | ,954" | 1 | ,947" |
|  | Sig. (2-tailed) | . 016 | . 282 | . 000 | . 476 | . 003 | . 003 | . 000 | . 000 | . 000 | . 202 | . 000 | . 000 | . 909 | . 000 |  | . 000 |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |
| EURIBOR_3M | Pearson Correlation | ,424* | -. 197 | ,389 ${ }^{\circ}$ | -. 092 | ,458*' | ,381* | -,757* | ,730" | -,680" | . 213 | -,755" | ,803* | -. 076 | ,978" | ,947" | 1 |
|  | Sig. (2-tailed) | . 012 | . 265 | . 023 | . 604 | . 006 | . 026 | . 000 | . 000 | . 000 | . 226 | . 000 | . 000 | . 674 | . 000 | . 000 |  |
|  | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 33 | 34 | 34 | 34 |


| EE 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,557" | . 267 | . 008 | ,960" | . 314 | -,694" | ,676" | -,477" | . 118 | -,697" | ,651" | ,389* | . 355 | ,444* |
|  | Sig. (2-tailed) |  | . 001 | . 154 | . 968 | . 000 | . 091 | . 000 | . 000 | . 008 | . 535 | . 000 | . 000 | . 034 | . 054 | . 014 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -,557" | 1 | -. 045 | -,821" | -,486" | . 229 | ,438* | -,588" | . 234 | . 224 | ,421* | -,365* | . 060 | -. 019 | . 029 |
|  | Sig. (2-tailed) | . 001 |  | . 813 | . 000 | . 006 | . 223 | . 015 | . 001 | . 213 | . 235 | . 021 | . 047 | . 753 | . 921 | . 880 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | . 267 | -. 045 | 1 | -. 295 | ,515" | ,758" | -,646" | ,445* | -,469" | . 038 | -,640" | ,684" | ,762" | ,868" | ,636" |
|  | Sig. (2-tailed) | . 154 | . 813 |  | . 113 | . 004 | . 000 | . 000 | . 014 | . 009 | . 840 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | . 008 | -,821" | -. 295 | 1 | -. 099 | -,591" | . 014 | . 209 | . 083 | -. 335 | . 034 | -. 080 | -,437 | -. 346 | -,408 ${ }^{\text {- }}$ |
|  | Sig. (2-tailed) | . 968 | . 000 | . 113 |  | . 602 | . 001 | . 943 | . 267 | . 661 | . 070 | . 857 | . 673 | . 016 | . 061 | . 025 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,960" | -,486" | ,515" | -. 099 | 1 | ,490" | -,762" | ,683" | -,508" | . 126 | -,763" | ,735" | ,548" | ,542" | ,559" |
|  | Sig. (2-tailed) | . 000 | . 006 | . 004 | . 602 |  | . 006 | . 000 | . 000 | . 004 | . 509 | . 000 | . 000 | . 002 | . 002 | . 001 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | . 314 | . 229 | ,758" | -,591" | ,490" | 1 | -,572" | . 264 | -,405* | . 310 | -,580" | ,621" | ,824" | ,811" | ,727" |
|  | Sig. (2-tailed) | . 091 | . 223 | . 000 | . 001 | . 006 |  | . 001 | . 159 | . 027 | . 096 | . 001 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | -,694" | ,438 | -,646" | . 014 | -,762" | -,572" | 1 | -,941" | ,852" | -. 013 | ,998* | -,985" | -,735" | -,805" | -,749" |
|  | Sig. (2-tailed) | . 000 | . 015 | . 000 | . 943 | . 000 | . 001 |  | . 000 | . 000 | . 947 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | ,676" | -,588** | ,445* | . 209 | ,683" | . 264 | -,941** | 1 | -,856"* | -. 110 | -,938* | ,906" | ,527" | ,619" | ,587** |
|  | Sig. (2-tailed) | . 000 | . 001 | . 014 | . 267 | . 000 | . 159 | . 000 |  | . 000 | . 564 | . 000 | . 000 | . 003 | . 000 | . 001 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | -,477" | . 234 | -,469" | . 083 | -,508" | -,405* | ,852" | -,856" | 1 | -. 185 | ,863" | -,860" | -,642" | -,724" | -,709" |
|  | Sig. (2-tailed) | . 008 | . 213 | . 009 | . 661 | . 004 | . 027 | . 000 | . 000 |  | . 328 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | . 118 | . 224 | . 038 | -. 335 | . 126 | . 310 | -. 013 | -. 110 | -. 185 | 1 | -. 036 | . 012 | ,394* | . 241 | ,370* |
|  | Sig. (2-tailed) | . 535 | . 235 | . 840 | . 070 | . 509 | . 096 | . 947 | . 564 | . 328 |  | . 852 | . 950 | . 031 | . 199 | . 044 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | -,697" | ,421 | -,640" | . 034 | -,763" | -,580" | ,998* | -,938* | ,863* | -. 036 | 1 | -,983" | -,741" | -,809" | -,756" |
|  | Sig. (2-tailed) | . 000 | . 021 | . 000 | . 857 | . 000 | . 001 | . 000 | . 000 | . 000 | . 852 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | ,651" | -,365* | ,684" | -. 080 | ,735" | ,621" | -,985** | ,906" | -,860" | . 012 | -,983" | 1 | ,763" | ,847" | ,793** |
|  | Sig. (2-tailed) | . 000 | . 047 | . 000 | . 673 | . 000 | . 000 | . 000 | . 000 | . 000 | . 950 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | ,389 | . 060 | ,762" | -,437 | ,548" | ,824" | -,735" | ,527" | -,642" | ,394* | -,741" | ,763" | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 034 | . 753 | . 000 | . 016 | . 002 | . 000 | . 000 | . 003 | . 000 | . 031 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | . 355 | -. 019 | ,868" | -. 346 | ,542" | ,811" | -,805" | ,619" | -,724" | . 241 | -,809" | ,847" | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 054 | . 921 | . 000 | . 061 | . 002 | . 000 | . 000 | . 000 | . 000 | . 199 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | ,444* | . 029 | ,636" | -,408* | ,559" | ,727" | -,749" | ,587* | -,709" | ,370* | -,756" | ,793* | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 014 | . 880 | . 000 | . 025 | . 001 | . 000 | . 000 | . 001 | . 000 | . 044 | . 000 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| EL 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | EL 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 157858.0 | 276151.0 | 221759.366 | 30957.3243 | L_E_area_Non_MFls | 30 | 199171.0 | 276151.0 | 233874.767 | 24563.1280 |
| L1 | 41 | 43.6373\% | 47.9658\% | 46.162290\% | 1.4627375\% | L1 | 30 | 43.6373\% | 47.9658\% | 46.665378\% | 1.3802477\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 17610.0 | 43123.0 | 25443.537 | 6857.0770 | L_EU_memb_Non_EMU_MFIs | 30 | 17610.0 | 43123.0 | 24752.633 | 7443.8995 |
| L2 | 41 | 3.6646\% | 8.3697\% | 5.322949\% | 1.3264951\% | L2 | 30 | 3.6646\% | 8.3697\% | 4.908139\% | 1.2799635\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 560.0 | 2893.0 | 1293.610 | 702.2835 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 560.0 | 2893.0 | 1187.900 | 761.5081 |
| L3 | 41 | .1185\% | .6452\% | .277499\% | .1603926\% | L3 | 30 | .1185\% | .6452\% | .241999\% | .1690725\% |
| L_Domestic_MFIs | 41 | 1842.0 | 25281.0 | 11426.756 | 6863.4885 | L_Domestic_MFIs | 30 | 1842.0 | 25281.0 | 9818.300 | 6984.6683 |
| L4 | 41 | .4088\% | 5.5101\% | 2.407600\% | 1.4676029\% | L4 | 30 | 4088\% | 5.5101\% | 1.934094\% | 1.3999236\% |
| L_Domestic_Non_MFIs | 41 | 157693.0 | 274041.0 | 220113.902 | 30344.3455 | L_Domestic_Non_MFIs | 30 | 197661.0 | 274041.0 | 231806.633 | 24421.6282 |
| L5 | 41 | 43.2464\% | 47.4548\% | 45.829662\% | 1.3550267\% | L5 | 30 | 43.2464\% | 47.4548\% | 46.250389\% | 1.3298824\% |
| Total loans (MFIs) | 41 | 19532.0 | 62255.0 | 36870.293 | 13011.6277 | Total loans (MFIs) | 30 | 19532.0 | 62255.0 | 34570.933 | 13778.4866 |
| Total loans (non-MFIs) | 41 | 316772.0 | 551505.0 | 443166.878 | 61051.8203 | Total loans (non-MFIs) | 30 | 399711.0 | 551505.0 | 466869.300 | 48694.7786 |
| TOTAL LOANS | 41 | 347173.0 | 613760.0 | 480037.171 | 63332.4508 | TOTAL LOANS | 30 | 442762.0 | 613760.0 | 501440.233 | 53972.9627 |
| D_E_area_MFls | 41 | 18326.0 | 162343.0 | 96249.927 | 44972.3293 | D_E_area_MFls | 30 | 58438.0 | 162343.0 | 117412.733 | 30059.6747 |
| D1 | 41 | 4.3552\% | 24.2236\% | 15.314212\% | 6.2158573\% | D1 | 30 | 11.2500\% | 24.2236\% | 18.369322\% | 3.8365403\% |
| D_E_area_Non_MFls | 41 | 131748.0 | 248293.0 | 191212.659 | 34327.9816 | D_E_area_Non_MFls | 30 | 131748.0 | 248293.0 | 187459.200 | 37583.5050 |
| D2 | 41 | 23.8758\% | 41.2225\% | 31.884186\% | 5.3190533\% | D2 | 30 | 23.8758\% | 35.6811\% | 29.360066\% | 3.6348418\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 2154.0 | 36793.0 | 21395.000 | 9426.1317 | D_EU_memb_Non_EMU_MFIs | 30 | 2154.0 | 29476.0 | 18034.167 | 8663.4345 |
| D3 | 41 | . $3926 \%$ | 6.2835\% | 3.643529\% | 1.8389129\% | D3 | 30 | . $3926 \%$ | 5.1610\% | 2.815647\% | 1.3822427\% |
| D_EU_memb_Non_EMU_Non_MFIs | 41 | 18092.0 | 57649.0 | 33943.902 | 9920.8144 | D_EU_memb_Non_EMU_Non_MFIs | 30 | 18092.0 | 57649.0 | 34538.233 | 10964.1438 |
| D4 | 41 | 3.2182\% | 7.3177\% | 5.578856\% | 1.1626604\% | D4 | 30 | 3.2182\% | 7.3177\% | 5.363145\% | 1.2131587\% |
| D_Domestic_MFls | 41 | 9226.0 | 137562.0 | 74416.146 | 41602.6278 | D_Domestic_MFls | 30 | 45515.0 | 137562.0 | 94355.833 | 28263.6059 |
| D5 | 41 | 2.1926\% | 23.1204\% | 11.926953\% | 6.4999803\% | D5 | 30 | 7.2101\% | 23.1204\% | 14.974788\% | 4.6400848\% |
| D_Domestic_Non_MFls | 41 | 130504.0 | 246591.0 | 189796.439 | 34183.7852 | D_Domestic_Non_MFls | 30 | 130504.0 | 246591.0 | 185929.933 | 37466.8375 |
| D6 | 41 | 23.6621\% | 41.0942\% | 31.652264\% | 5.3364688\% | D6 | 30 | 23.6621\% | 35.4429\% | 29.117032\% | 3.6277805\% |
| Total deposits (MFIs) | 41 | 53992.0 | 309266.0 | 192061.073 | 78891.4543 | Total deposits (MFIs) | 30 | 129364.0 | 309266.0 | 229802.733 | 51521.0528 |
| Total deposits (non-MFIs) | 41 | 283747.0 | 519236.0 | 414953.000 | 72439.1700 | Total deposits (non-MFIs) | 30 | 283747.0 | 519236.0 | 407927.367 | 79164.9990 |
| TOTAL DEPOSITS | 41 | 420787.0 | 787797.0 | 607014.073 | 104600.2617 | TOTAL DEPOSITS | 30 | 478977.0 | 787797.0 | 637730.100 | 95582.7646 |
| LTD gap | 41 | -73013.0 | 170048.0 | 65084.171 | 78140.4440 | LTD gap | 30 | -73013.0 | 170048.0 | 93512.867 | 72718.6387 |
| LTD | 41 | . 8593838 | 1.5911731 | 1.1853713 | . 2221882 | LTD | 30 | . 8593838 | 1.5911731 | 1.2641530 | . 2098942 |
| GLTDFq | 40 | -3.9123134 | 31.6916300 | 1.7663973 | 6.6943686 | GLTDFq | 30 | -3.9123134 | 31.6916300 | 1.1740392 | 6.1164520 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| EL 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,956" | -,847** | -,960" | ,997* | ,603** | -,704" | -,643** | -. 002 | ,760" | -,704** | ,896" | . 009 | -,668" | -,731" | -,705" |
|  | Sig. (2-tailed) |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 989 | . 000 | . 000 | . 000 | . 956 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | -,956" | 1 | ,839"' | ,840" | -,956" | -,505" | ,608" | ,531** | . 011 | -,666" | ,608" | -,807" | . 032 | ,618* | ,683" | ,647* |
|  | Sig. (2-tailed) | . 000 |  | . 000 | . 000 | . 000 | . 001 | . 000 | . 000 | . 946 | . 000 | . 000 | . 000 | . 843 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | -,847" | ,839" | 1 | ,765* | -,854" | -,435* | ,574" | ,440" | -,422" | -,575" | ,574" | -,764" | . 097 | ,417" | ,467" | ,453" |
|  | Sig. (2-tailed) | . 000 | . 000 |  | . 000 | . 000 | . 005 | . 000 | . 004 | . 006 | . 000 | . 000 | . 000 | . 551 | . 007 | . 002 | . 003 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -,960" | ,840" | ,765" | 1 | -,959" | -,606* | ,700" | ,667* | . 008 | -,758" | ,700" | -,893" | -. 054 | ,634" | ,693" | ,680" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 961 | . 000 | . 000 | . 000 | . 739 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,997* | -,956" | -,854" | -,959" | 1 | ,551" | -,661" | -,601" | . 033 | ,721" | -,661" | ,880" | . 006 | -,620" | -,685" | -,663" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 836 | . 000 | . 000 | . 000 | . 971 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | ,603" | -,505" | -,435" | -,606" | ,551" | 1 | -,982" | -,968* | -. 210 | ,966" | -,983" | ,782" | . 109 | -,781" | -,744" | -,748" |
|  | Sig. (2-tailed) | . 000 | . 001 | . 005 | . 000 | . 000 |  | . 000 | . 000 | . 188 | . 000 | . 000 | . 000 | . 502 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | -,704" | ,608" | ,574" | ,700" | -,661" | -,982" | 1 | ,960" | . 080 | -,986" | 1,000" | -,863" | -. 099 | ,762" | ,740" | ,745" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 618 | . 000 | . 000 | . 000 | . 545 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -,643" | ,531" | ,440" | ,667" | -,601" | -,968* | ,960" | 1 | . 239 | -,973" | ,959" | -,817" | -. 150 | ,753" | ,725" | ,732" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 004 | . 000 | . 000 | . 000 | . 000 |  | . 133 | . 000 | . 000 | . 000 | . 354 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | -. 002 | 011 | -,422" | . 008 | . 033 | -. 210 | . 080 | . 239 | 1 | -. 179 | . 083 | -. 015 | -. 099 | ,410" | ,415" | , 380 |
|  | Sig. (2-tailed) | . 989 | . 946 | . 006 | . 961 | . 836 | . 188 | . 618 | . 133 |  | . 262 | . 608 | . 926 | . 542 | . 008 | . 007 | . 014 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | ,760" | -,666" | -,575" | -,758" | ,721" | ,966" | -,986" | -,973" | -. 179 | 1 | -,986" | ,902" | . 116 | -,790" | -,783" | -,782" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 262 |  | . 000 | . 000 | . 475 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | -,704" | ,608" | ,574" | ,700" | -,661" | -,983" | 1,000" | ,959** | . 083 | -,986" | 1 | -,863" | -. 097 | ,763** | ,742" | ,745" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 608 | . 000 |  | . 000 | . 550 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | ,896" | -,807" | -,764" | -,893" | ,880" | ,782" | -,863" | -,817* | -. 015 | ,902" | -,863" | 1 | . 071 | -,647* | -,700" | -,676" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 926 | . 000 | . 000 |  | . 665 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | . 009 | . 032 | . 097 | -. 054 | . 006 | . 109 | -. 099 | -. 150 | -. 099 | . 116 | -. 097 | . 071 | 1 | -. 055 | -. 042 | -. 021 |
|  | Sig. (2-tailed) | . 956 | . 843 | . 551 | . 739 | . 971 | . 502 | . 545 | . 354 | . 542 | . 475 | . 550 | . 665 |  | . 737 | . 797 | . 898 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | -,668* | ,618" | ,417" | ,634* | -,620" | -,781" | ,762" | ,753* | ,410" | -,790" | ,763* | -,647" | -. 055 | 1 | ,975" | ,983" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 007 | . 000 | . 000 | . 000 | . 000 | . 000 | . 008 | . 000 | . 000 | . 000 | . 737 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | -,731" | ,683" | ,467" | ,693" | -,685" | -,744" | ,740" | ,725* | ,415" | -,783" | ,742" | -,700" | -. 042 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 | . 007 | . 000 | . 000 | . 000 | . 797 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | -,705" | ,647" | ,453 ${ }^{\text {" }}$ | ,680" | -,663" | -,748* | ,745* | ,732** | ,380 | -,782" | ,745* | -,676" | -. 021 | ,983** | ,966" | 1 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 003 | . 000 | . 000 | . 000 | . 000 | . 000 | . 014 | . 000 | . 000 | . 000 | . 898 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| EL 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,955" | -,853" | -,959" | 1,000" | . 353 | -,570" | -,420 ${ }^{\circ}$ | . 284 | ,654" | -,574" | ,864" | -,634" | -,676" | -,614" |
|  | Sig. (2-tailed) |  | . 000 | . 000 | . 000 | . 000 | . 056 | . 001 | . 021 | . 128 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -,955" | 1 | ,847" | ,834** | -,957" | -. 203 | ,431* | . 275 | -. 250 | -,526" | ,435* | -,754" | ,610" | ,656" | ,576" |
|  | Sig. (2-tailed) | . 000 |  | . 000 | . 000 | . 000 | . 281 | . 017 | . 141 | . 183 | . 003 | . 016 | . 000 | . 000 | . 000 | . 001 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | -,853" | ,847* | 1 | ,761" | -,858" | -. 289 | ,551" | . 290 | -,667" | -,537" | ,553" | -,754* | . 357 | ,421* | ,396* |
|  | Sig. (2-tailed) | . 000 | . 000 |  | . 000 | . 000 | . 122 | . 002 | . 120 | . 000 | . 002 | . 002 | . 000 | . 053 | . 020 | . 030 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,959" | ,834* | ,761" | 1 | -,957" | -,455* | ,638* | ,518" | -. 255 | -,714" | ,642" | -,887** | ,619" | ,649" | ,606" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 |  | . 000 | . 011 | . 000 | . 003 | . 174 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | 1,000** | -,957** | -,858** | -,957* | 1 | . 345 | -,565" | -,412 | . 298 | ,647" | -,569* | ,858* | -,626" | -,666" | -,604* |
|  | Sig. (2-tailed) | 000 | . 000 | . 000 | . 000 |  | . 062 | . 001 | . 024 | . 109 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | . 353 | -. 203 | -. 289 | -,455* | . 345 | 1 | -,955* | -,955* | . 110 | ,923* | -,954* | ,692" | -. 022 | . 048 | -. 054 |
|  | Sig. (2-tailed) | . 056 | . 281 | . 122 | . 011 | . 062 |  | . 000 | . 000 | . 564 | . 000 | . 000 | . 000 | . 908 | . 803 | . 778 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | -,570" | ,431 | ,551" | ,638" | -,565" | -,955" | 1 | ,918" | -. 307 | -,969" | 1,000" | -,833" | . 135 | . 097 | . 180 |
|  | Sig. (2-tailed) | . 001 | . 017 | . 002 | . 000 | . 001 | . 000 |  | . 000 | . 099 | . 000 | . 000 | . 000 | . 476 | . 609 | . 341 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -,420* | . 275 | . 290 | ,518** | -,412* | -,955" | ,918* | 1 | -. 024 | -,940" | ,919** | -,723* | . 187 | . 102 | . 195 |
|  | Sig. (2-tailed) | . 021 | . 141 | . 120 | . 003 | . 024 | . 000 | . 000 |  | . 899 | . 000 | . 000 | . 000 | . 322 | . 591 | . 302 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | . 284 | -. 250 | -,667" | -. 255 | . 298 | . 110 | -. 307 | -. 024 | 1 | . 133 | -. 304 | . 221 | . 283 | . 220 | . 181 |
|  | Sig. (2-tailed) | . 128 | . 183 | . 000 | . 174 | . 109 | . 564 | . 099 | . 899 |  | . 482 | . 102 | . 240 | . 129 | . 243 | .339 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | ,654" | -,526" | -,537" | -,714" | ,647" | ,923* | -,969" | -,940" | . 133 | 1 | -,970" | ,893* | -. 329 | -. 284 | -. 347 |
|  | Sig. (2-tailed) | . 000 | . 003 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 | . 482 |  | . 000 | . 000 | . 076 | . 128 | . 060 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | -,574" | ,435* | ,553** | ,642" | -,569" | -,954" | 1,000" | ,919" | -. 304 | -,970" | 1 | -,837* | . 142 | . 103 | . 186 |
|  | Sig. (2-tailed) | . 001 | . 016 | . 002 | . 000 | . 001 | . 000 | . 000 | . 000 | . 102 | . 000 |  | . 000 | . 455 | . 586 | . 325 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | ,864" | -,754" | -,754* | -,887* | ,858" | ,692" | -,833* | ,723* | . 221 | ,893* | -,837* | 1 | -,553" | -,576" | -,541" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 240 | . 000 | . 000 |  | . 002 | . 001 | . 002 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -,634" | ,610" | . 357 | ,619" | -,626" | -. 022 | . 135 | . 187 | . 283 | -. 329 | . 142 | -,553" | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 053 | . 000 | . 000 | . 908 | . 476 | . 322 | . 129 | . 076 | . 455 | . 002 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -,676" | ,656" | ,421* | ,649" | -,666" | . 048 | . 097 | . 102 | . 220 | -. 284 | . 103 | -,576" | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 020 | . 000 | . 000 | . 803 | . 609 | . 591 | . 243 | . 128 | . 586 | . 001 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -,614" | ,576" | ,396* | ,606* | -,604" | -. 054 | . 180 | . 195 | . 181 | -. 347 | . 186 | -,541" | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 000 | . 001 | . 030 | . 000 | . 000 | . 778 | . 341 | . 302 | . 339 | . 060 | . 325 | . 002 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| ES 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | ES 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 1389864.0 | 1961861.0 | 1729605.585 | 209969.7996 | L_E_area_Non_MFIs | 30 | 1389864.0 | 1961861.0 | 1729354.867 | 221219.2487 |
| L1 | 41 | 45.3663\% | 46.8867\% | 46.349112\% | . $3433325 \%$ | L1 | 30 | 45.3663\% | 46.8867\% | 46.399216\% | . $3747831 \%$ |
| L_EU_memb_Non_EMU_MFIs | 41 | 16491.0 | 91134.0 | 55429.585 | 20377.5264 | L_EU_memb_Non_EMU_MFIs | 30 | 16491.0 | 91134.0 | 54674.300 | 23037.1548 |
| L2 | 41 | .5518\% | 2.4318\% | 1.455783\% | .4616200\% | L2 | 30 | .5518\% | 2.4318\% | 1.427736\% | .5233599\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 11047.0 | 24056.0 | 15675.293 | 2725.8248 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 11047.0 | 24056.0 | 15393.067 | 2904.7893 |
| L3 | 41 | . $3471 \%$ | .5774\% | .419703\% | .0487695\% | L3 | 30 | . $3471 \%$ | . $5774 \%$ | . $411661 \%$ | .0434331\% |
| L_Domestic_MFls | 41 | 176619.0 | 292770.0 | 227314.293 | 30426.8842 | L_Domestic_MFls | 30 | 176619.0 | 292770.0 | 226109.433 | 33658.7245 |
| L4 | 41 | 5.4603\% | 7.2506\% | 6.097729\% | .4445358\% | L4 | 30 | 5.4603\% | 7.2506\% | 6.062427\% | .4000610\% |
| L_Domestic_Non_MFIs | 41 | 1366112.0 | 1935987.0 | 1704722.512 | 208293.9849 | L_Domestic_Non_MFIs | 30 | 1366112.0 | 1935987.0 | 1703441.833 | 219372.8843 |
| L5 | 41 | 44.6787\% | 46.1955\% | 45.677673\% | . $3449670 \%$ | L5 | 30 | 44.6787\% | 46.1955\% | 45.698960\% | . $3798070 \%$ |
| Total loans (MFIs) | 41 | 202596.0 | 376169.0 | 282743.878 | 47190.4088 | Total loans (MFIs) | 30 | 202596.0 | 376169.0 | 280783.733 | 53856.6339 |
| Total loans (non-MFIs) | 41 | 2768142.0 | 3915546.0 | 3450003.390 | 420213.5822 | Total loans (non-MFIs) | 30 | 2768142.0 | 3915546.0 | 3448189.767 | 442933.5908 |
| TOTAL LOANS | 41 | 2974863.0 | 4217755.0 | 3732747.268 | 459826.9896 | TOTAL LOANS | 30 | 2974863.0 | 4217755.0 | 3728973.500 | 489044.2868 |
| D_E_area_MFls | 41 | 355249.0 | 771765.0 | 500844.098 | 94988.1786 | D_E_area_MFls | 30 | 434545.0 | 771765.0 | 528739.100 | 91953.5574 |
| D1 | 41 | 9.8410\% | 16.4557\% | 12.328190\% | 1.4712078\% | D1 | 30 | 9.8410\% | 16.4557\% | 12.503005\% | 1.6462875\% |
| D_E_area_Non_MFIs | 41 | 1100743.0 | 1792119.0 | 1567381.415 | 162478.2965 | D_E_area_Non_MFls | 30 | 1486555.0 | 1792119.0 | 1624948.267 | 106141.4351 |
| D2 | 41 | 34.0652\% | 40.4455\% | 38.756061\% | 1.5962384\% | D2 | 30 | 34.0652\% | 40.4455\% | 38.577323\% | 1.7978086\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 32225.0 | 171650.0 | 108198.415 | 44009.7333 | D_EU_memb_Non_EMU_MFIs | 30 | 32225.0 | 171650.0 | 103518.133 | 48592.3870 |
| D3 | 41 | .8618\% | 4.1704\% | 2.647524\% | .9979842\% | D3 | 30 | .8618\% | 3.9450\% | 2.391313\% | 1.0356805\% |
| D_EU_memb_Non_EMU_Non_MFls | 41 | 6511.0 | 69115.0 | 17865.561 | 17847.8230 | D_EU_memb_Non_EMU_Non_MFls | 30 | 6511.0 | 69115.0 | 20155.767 | 20420.6399 |
| D4 | 41 | .1705\% | 1.5614\% | . $424785 \%$ | . $3902756 \%$ | D4 | 30 | .1705\% | 1.5614\% | . $462401 \%$ | .4515799\% |
| D_Domestic_MFIs | 41 | 196835.0 | 616049.0 | 334029.561 | 103076.8060 | D_Domestic_MFIs | 30 | 260192.0 | 616049.0 | 365737.733 | 101817.6897 |
| D5 | 41 | 5.8925\% | 13.3178\% | 8.176228\% | 1.9461429\% | D5 | 30 | 5.8925\% | 13.3178\% | 8.637641\% | 2.0585808\% |
| D_Domestic_Non_MFIs | 41 | 1071932.0 | 1727514.0 | 1523182.976 | 156019.6756 | D_Domestic_Non_MFIs | 30 | 1435010.0 | 1727514.0 | 1576679.467 | 102951.6535 |
| D6 | 41 | 33.3277\% | 39.4222\% | 37.667212\% | 1.5275018\% | D6 | 30 | 33.3277\% | 39.0870\% | 37.428317\% | 1.6833664\% |
| Total deposits (MFIs) | 41 | 652593.0 | 1513345.0 | 943072.073 | 203615.9050 | Total deposits (MFIs) | 30 | 787942.0 | 1513345.0 | 997994.967 | 203865.6240 |
| Total deposits (non-MFIs) | 41 | 2183942.0 | 3580101.0 | 3108429.951 | 327960.2698 | Total deposits (non-MFIs) | 30 | 2934019.0 | 3580101.0 | 3221783.500 | 222924.5352 |
| TOTAL DEPOSITS | 41 | 2888446.0 | 4748954.0 | 4051502.024 | 455516.0679 | TOTAL DEPOSITS | 30 | 3724185.0 | 4748954.0 | 4219778.467 | 315773.7625 |
| LTD gap | 41 | 31801.0 | 1015121.0 | 624317.317 | 322412.5035 | LTD gap | 30 | 31801.0 | 974372.0 | 507190.000 | 299098.5357 |
| LTD | 41 | 1.0107548 | 1.4072123 | 1.2041096 | 0.1155644 | LTD | 30 | 1.0107548 | 1.3151458 | 1.1533871 | 0.0881952 |
| GLTDFq | 40 | -9.8141740 | 43.1060221 | 1.2941420 | 7.0791433 | GLTDFq | 29 | -9.8141740 | 43.1060221 | 1.4527302 | 8.3387631 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 29 |  |  |  |  |


| ES 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,788" | -. 159 | -,689" | ,970" | -,564* | ,710" | -,370* | -. 111 | -,488* | ,693" | -,617** | . 180 | -. 253 | -,362* | -. 243 |
|  | Sig. (2-tailed) |  | . 000 | . 320 | . 000 | . 000 | . 000 | . 000 | . 017 | . 491 | . 001 | . 000 | . 000 | . 266 | . 110 | . 020 | . 126 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | -,788" | 1 | . 159 | . 120 | -,731" | ,411" | -,622" | ,474" | . 200 | ,392* | -,606" | ,526" | -. 095 | . 221 | ,331* | . 200 |
|  | Sig. (2-tailed) | . 000 |  | . 320 | . 453 | . 000 | . 008 | . 000 | . 002 | . 209 | . 011 | . 000 | . 000 | . 560 | . 166 | . 034 | . 210 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | -. 159 | . 159 | 1 | -. 072 | -. 103 | . 007 | -. 028 | . 127 | . 116 | -. 065 | -. 008 | ,364* | . 029 | ,318* | ,335* | . 246 |
|  | Sig. (2-tailed) | . 320 | . 320 |  | . 656 | . 520 | . 964 | . 864 | . 429 | . 471 | . 688 | . 959 | . 019 | . 858 | . 043 | . 032 | . 121 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -,689" | . 120 | -. 072 | 1 | -,754" | ,533* | -,511" | -. 052 | -. 083 | ,463" | -,515" | . 253 | -. 188 | -. 003 | . 045 | . 006 |
|  | Sig. (2-tailed) | . 000 | . 453 | . 656 |  | . 000 | . 000 | . 001 | . 746 | . 608 | . 002 | . 001 | . 110 | . 245 | . 983 | . 781 | . 968 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,970" | -,731" | -. 103 | -,754" | 1 | -,677* | ,787" | -. 216 | -. 068 | -,626" | ,786" | -,468" | . 173 | -. 084 | -. 189 | -. 069 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 520 | . 000 |  | . 000 | . 000 | . 175 | . 675 | . 000 | . 000 | . 002 | . 284 | . 603 | . 237 | . 669 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | -,564" | ,411" | . 007 | ,533* | -,677* | 1 | -,940" | -. 285 | -,353* | ,964" | -,933* | . 044 | -. 013 | -. 274 | -. 245 | -,314* |
|  | Sig. (2-tailed) | . 000 | . 008 | . 964 | . 000 | . 000 |  | . 000 | . 071 | . 024 | . 000 | . 000 | . 785 | . 936 | . 083 | . 123 | . 046 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | ,710" | -,622" | -. 028 | -,511" | ,787" | -,940" | 1 | -. 009 | . 161 | -,909" | ,984" | -. 227 | . 057 | . 205 | . 121 | . 220 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 864 | . 001 | . 000 | . 000 |  | . 958 | . 316 | . 000 | . 000 | . 153 | . 727 | . 199 | . 449 | . 168 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -,370* | ,474" | . 127 | -. 052 | -. 216 | -. 285 | -. 009 | 1 | . 283 | -,397* | . 064 | ,786* | -. 125 | ,566" | ,695" | ,626" |
|  | Sig. (2-tailed) | . 017 | . 002 | . 429 | . 746 | . 175 | . 071 | . 958 |  | . 073 | . 010 | . 691 | . 000 | . 442 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | -. 111 | . 200 | . 116 | -. 083 | -. 068 | -,353* | . 161 | . 283 | 1 | -. 250 | . 050 | . 061 | -. 112 | -. 032 | . 048 | . 040 |
|  | Sig. (2-tailed) | . 491 | . 209 | . 471 | . 608 | . 675 | . 024 | . 316 | . 073 |  | . 116 | . 755 | . 706 | . 492 | . 841 | . 766 | . 805 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -,488" | ,392* | -. 065 | ,463* | -,626" | ,964* | -,909" | -,397* | -. 250 | 1 | -,929" | -. 151 | . 005 | -,461" | -,435" | -,496" |
|  | Sig. (2-tailed) | . 001 | . 011 | . 688 | . 002 | . 000 | . 000 | . 000 | . 010 | . 116 |  | . 000 | . 347 | . 976 | . 002 | . 004 | . 001 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | ,693" | -,606" | -. 008 | -,515" | ,786" | -,933" | ,984" | . 064 | . 050 | -,929" | 1 | -. 142 | . 057 | . 276 | . 196 | . 286 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 959 | . 001 | . 000 | . 000 | . 000 | . 691 | . 755 | . 000 |  | . 375 | . 727 | . 081 | . 219 | . 070 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | -,617" | ,526" | ,364* | . 253 | -,468** | . 044 | -. 227 | ,786" | . 061 | -. 151 | -. 142 | 1 | -. 133 | ,782** | ,877" | ,781" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 019 | . 110 | . 002 | . 785 | . 153 | . 000 | . 706 | . 347 | . 375 |  | . 413 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | . 180 | -. 095 | . 029 | -. 188 | . 173 | -. 013 | . 057 | -. 125 | -. 112 | . 005 | . 057 | -. 133 | 1 | -. 032 | -. 077 | -. 049 |
|  | Sig. (2-tailed) | . 266 | . 560 | . 858 | . 245 | . 284 | . 936 | . 727 | . 442 | . 492 | . 976 | . 727 | . 413 |  | . 843 | . 638 | . 763 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | -. 253 | . 221 | ,318* | -. 003 | -. 084 | -. 274 | . 205 | ,566" | -. 032 | -,461" | . 276 | ,782* | -. 032 | 1 | ,975* | ,983** |
|  | Sig. (2-tailed) | . 110 | . 166 | . 043 | . 983 | . 603 | . 083 | . 199 | . 000 | . 841 | . 002 | . 081 | . 000 | . 843 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | -,362* | ,331* | ,335* | . 045 | -. 189 | -. 245 | . 121 | ,695" | . 048 | -,435* | . 196 | ,877* | -. 077 | ,975* | 1 | ,966" |
|  | Sig. (2-tailed) | . 020 | . 034 | . 032 | . 781 | . 237 | . 123 | . 449 | . 000 | . 766 | . 004 | . 219 | . 000 | . 638 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | -. 243 | . 200 | . 246 | . 006 | -. 069 | -,314* | . 220 | ,626" | . 040 | -,496* | . 286 | ,781* | -. 049 | ,983** | ,966" | 1 |
|  | Sig. (2-tailed) | . 126 | . 210 | . 121 | . 968 | . 669 | . 046 | . 168 | . 000 | . 805 | . 001 | . 070 | . 000 | . 763 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| ES 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,884" | -. 024 | -,708* | ,980" | -,634** | ,806" | -. 356 | -. 168 | -,652" | ,821" | -,661" | -. 319 | -,478" | -. 205 |
|  | Sig. (2-tailed) |  | . 000 | . 900 | . 000 | . 000 | . 000 | . 000 | . 053 | . 374 | . 000 | . 000 | . 000 | . 086 | . 008 | . 276 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -,884" | 1 | . 107 | . 311 | -,845" | ,512" | -,738" | 511" | . 229 | ,538" | -,746" | ,715" | ,445* | ,556" | . 295 |
|  | Sig. (2-tailed) | . 000 |  | . 574 | . 094 | . 000 | . 004 | . 000 | . 004 | . 223 | . 002 | . 000 | . 000 | . 014 | . 001 | . 114 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | -. 024 | . 107 | 1 | -. 205 | -. 022 | . 094 | -. 154 | . 112 | . 245 | . 082 | -. 162 | . 213 | . 222 | . 153 | . 053 |
|  | Sig. (2-tailed) | . 900 | . 574 |  | . 277 | . 910 | . 621 | . 415 | . 556 | . 193 | . 666 | . 392 | . 258 | . 238 | . 419 | . 782 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,708" | . 311 | -. 205 | 1 | -,760" | ,585* | -,569" | -. 120 | -. 079 | ,591" | -,592" | . 201 | -. 117 | . 059 | -. 114 |
|  | Sig. (2-tailed) | . 000 | . 094 | . 277 |  | . 000 | . 001 | . 001 | . 528 | . 677 | . 001 | . 001 | . 288 | . 538 | . 758 | . 548 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,980" | -,845** | -. 022 | -,760" | 1 | -,707** | ,839" | -. 239 | -. 094 | -,730" | ,860" | -,568" | -. 202 | -,374* | -. 089 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 910 | . 000 |  | . 000 | . 000 | . 204 | . 621 | . 000 | . 000 | . 001 | . 285 | . 042 | . 639 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -,634** | ,512" | . 094 | ,585" | -,707" | 1 | -,937** | -. 231 | -,411* | ,986" | -,930" | . 274 | -. 270 | -. 112 | -,374* |
|  | Sig. (2-tailed) | . 000 | . 004 | . 621 | . 001 | . 000 |  | . 000 | . 219 | . 024 | . 000 | . 000 | . 142 | . 148 | . 557 | . 042 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | ,806" | -,738* | -. 154 | -,569" | ,839" | -,937** | 1 | -. 098 | . 204 | -,925" | ,985" | -,567" | -. 035 | -. 214 | . 091 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 415 | . 001 | . 000 | . 000 |  | . 607 | . 280 | . 000 | . 000 | . 001 | . 853 | . 256 | . 633 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -. 356 | ,511" | . 112 | -. 120 | -. 239 | -. 231 | -. 098 | 1 | ,401* | -. 280 | -. 050 | ,844* | ,870" | ,936" | ,821" |
|  | Sig. (2-tailed) | . 053 | . 004 | . 556 | . 528 | . 204 | . 219 | . 607 |  | . 028 | . 134 | . 794 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | -. 168 | . 229 | . 245 | -. 079 | -. 094 | -,411* | . 204 | ,401* | 1 | -. 354 | . 102 | . 284 | ,644" | ,539" | ,653" |
|  | Sig. (2-tailed) | . 374 | . 223 | . 193 | . 677 | . 621 | . 024 | . 280 | . 028 |  | . 055 | . 591 | . 128 | . 000 | . 002 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -,652" | ,538" | . 082 | ,591" | -,730" | ,986* | -,925" | -. 280 | -. 354 | 1 | -,932" | . 218 | -. 292 | -. 150 | -,397* |
|  | Sig. (2-tailed) | . 000 | . 002 | . 666 | . 001 | . 000 | . 000 | . 000 | . 134 | . 055 |  | . 000 | . 247 | . 117 | . 428 | . 030 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | ,821" | -,746" | -. 162 | -,592" | ,860" | -,930" | ,985" | -. 050 | . 102 | -,932" | 1 | -,525" | -. 048 | -. 199 | . 074 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 392 | . 001 | . 000 | . 000 | . 000 | . 794 | . 591 | . 000 |  | . 003 | . 799 | . 292 | . 698 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | -,661" | ,715* | . 213 | . 201 | -,568" | . 274 | -,567" | 844** | . 284 | . 218 | -,525" | 1 | ,739* | ,883" | ,646" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 258 | . 288 | . 001 | . 142 | . 001 | . 000 | . 128 | . 247 | . 003 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -. 319 | ,445* | . 222 | -. 117 | -. 202 | -. 270 | -. 035 | 870" | ,644" | -. 292 | -. 048 | ,739" | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 086 | . 014 | . 238 | . 538 | . 285 | . 148 | . 853 | . 000 | . 000 | . 117 | . 799 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -,478* | ,556" | . 153 | . 059 | -,374 | -. 112 | -. 214 | 936** | ,539* | -. 150 | -. 199 | ,883* | ,931" | 1 | ,877* |
|  | Sig. (2-tailed) | . 008 | . 001 | . 419 | . 758 | . 042 | . 557 | . 256 | . 000 | . 002 | . 428 | . 292 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -. 205 | . 295 | . 053 | -. 114 | -. 089 | -,374* | . 091 | ,821" | ,653" | -,397 | . 074 | ,646" | ,919* | ,877* | 1 |
|  | Sig. (2-tailed) | . 276 | . 114 | . 782 | . 548 | . 639 | . 042 | . 633 | . 000 | . 000 | . 030 | . 698 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| FI 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | Fl 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 121702.0 | 225220.0 | 181179.585 | 32417.6964 | L_E_area_Non_MFls | 30 | 161404.0 | 225220.0 | 196004.533 | 23209.7110 |
| L1 | 41 | 35.3442\% | 41.9851\% | 39.607621\% | 1.9490607\% | L1 | 30 | 35.3442\% | 41.9851\% | 39.166248\% | 2.1051403\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 25854.0 | 64393.0 | 40939.683 | 8497.6532 | L_EU_memb_Non_EMU_MFIs | 30 | 25854.0 | 64393.0 | 40495.433 | 9387.3628 |
| L2 | 41 | 4.5655\% | 14.1682\% | 9.368982\% | 2.9068499\% | L2 | 30 | 4.5655\% | 14.1682\% | 8.325135\% | 2.6646366\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 1498.0 | 35453.0 | 14304.732 | 11860.7962 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 1845.0 | 35453.0 | 18756.100 | 10844.0064 |
| L3 | 41 | .4219\% | 6.2083\% | 2.761585\% | 2.1154150\% | L3 | 30 | .4219\% | 6.2083\% | 3.544068\% | 1.9515498\% |
| L_Domestic_MFIs | 41 | 17802.0 | 105496.0 | 47812.341 | 28225.8718 | L_Domestic_MFIs | 30 | 21344.0 | 105496.0 | 58002.367 | 26392.4387 |
| L4 | 41 | 4.9588\% | 19.5195\% | 9.776012\% | 4.3736650\% | L4 | 30 | 5.5355\% | 19.5195\% | 11.226175\% | 4.2620223\% |
| L_Domestic_Non_MFIs | 41 | 121099.0 | 215989.0 | 175378.341 | 27706.3374 | L_Domestic_Non_MFIs | 30 | 159781.0 | 215989.0 | 188445.867 | 18435.3718 |
| L5 | 41 | 34.3306\% | 41.6454\% | 38.485801\% | 2.1238130\% | L5 | 30 | 34.3306\% | 41.6454\% | 37.738375\% | 2.0042099\% |
| Total loans (MFIs) | 41 | 54566.0 | 147141.0 | 88752.024 | 26988.5845 | Total loans (MFIs) | 30 | 60824.0 | 147141.0 | 98497.800 | 24993.8654 |
| Total loans (non-MFIs) | 41 | 244299.0 | 467629.0 | 370862.659 | 70857.7138 | Total loans (non-MFIs) | 30 | 323656.0 | 467629.0 | 403206.500 | 51377.9879 |
| TOTAL LOANS | 41 | 299074.0 | 586918.0 | 459614.683 | 89828.3124 | TOTAL LOANS | 30 | 385584.0 | 586918.0 | 501704.300 | 62725.8358 |
| D_E_area_MFls | 41 | 18691.0 | 40779.0 | 30607.268 | 7487.4769 | D_E_area_MFls | 30 | 21930.0 | 40779.0 | 33478.267 | 6426.8522 |
| D1 | 41 | 7.2806\% | 10.5981\% | 8.689227\% | .7387657\% | D1 | 30 | 7.2806\% | 9.2723\% | 8.453362\% | .4886760\% |
| D_E_area_Non_MFls | 41 | 82889.0 | 166153.0 | 124490.366 | 25184.3099 | D_E_area_Non_MFls | 30 | 107565.0 | 166153.0 | 135751.133 | 18852.6749 |
| D2 | 41 | 31.5257\% | 39.8386\% | 35.647565\% | 2.3592039\% | D2 | 30 | 31.5257\% | 38.5719\% | 34.608279\% | 1.7724042\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 9737.0 | 91434.0 | 50147.244 | 26965.3537 | D_EU_memb_Non_EMU_MFIs | 30 | 23514.0 | 91434.0 | 62315.800 | 20597.2092 |
| D3 | 41 | 4.6210\% | 20.2133\% | 13.061388\% | 4.7284409\% | D3 | 30 | 8.3005\% | 20.2133\% | 15.335717\% | 3.1979040\% |
| D_EU_memb_Non_EMU_Non_MFIs | 41 | 702.0 | 20247.0 | 8354.878 | 7054.9343 | D_EU_memb_Non_EMU_Non_MFIs | 30 | 1086.0 | 20247.0 | 11082.800 | 6320.7914 |
| D4 | 41 | .2667\% | 5.6794\% | 2.046862\% | 1.6277668\% | D4 | 30 | . $3625 \%$ | 5.6794\% | 2.658836\% | 1.4864413\% |
| D_Domestic_MFls | 41 | 14751.0 | 36063.0 | 24920.976 | 6329.5852 | D_Domestic_MFls | 30 | 19372.0 | 36063.0 | 27555.000 | 5080.0846 |
| D5 | 41 | 5.8334\% | 7.9852\% | 7.046928\% | .4738463\% | D5 | 30 | 5.8334\% | 7.6475\% | 6.971795\% | .4269695\% |
| D_Domestic_Non_MFls | 41 | 80595.0 | 146976.0 | 115742.683 | 18555.4962 | D_Domestic_Non_MFls | 30 | 105641.0 | 146976.0 | 124486.800 | 12206.3602 |
| D6 | 41 | 28.6783\% | 39.0430\% | 33.508031\% | 3.5927309\% | D6 | 30 | 28.6783\% | 38.0237\% | 31.972011\% | 2.8909036\% |
| Total deposits (MFIs) | 41 | 46310.0 | 163723.0 | 105675.488 | 40203.5094 | Total deposits (MFIs) | 30 | 64816.0 | 163723.0 | 123349.067 | 31451.6080 |
| Total deposits (non-MFIs) | 41 | 164302.0 | 323808.0 | 248587.927 | 49326.3450 | Total deposits (non-MFIs) | 30 | 214391.0 | 323808.0 | 271320.733 | 35210.0007 |
| TOTAL DEPOSITS | 41 | 210714.0 | 486973.0 | 354263.415 | 88776.3176 | TOTAL DEPOSITS | 30 | 283284.0 | 486973.0 | 394669.800 | 65668.9827 |
| LTD gap | 41 | 134772.0 | 280478.0 | 211026.756 | 43056.8685 | LTD gap | 30 | 171193.0 | 280478.0 | 230383.567 | 32266.9434 |
| LTD | 41 | 1.7545385 | 2.0406008 | 1.8509770 | 0.0735844 | LTD | 30 | 1.7545385 | 2.0406008 | 1.8515297 | 0.0836435 |
| GLTDFq | 40 | -28.4539877 | 5.5881341 | -0.1876181 | 5.3797191 | GLTDFq | 30 | -28.4539877 | 2.9375600 | -0.9515743 | 5.9848374 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| FI 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | . 177 | -,333* | -,835" | ,890" | . 176 | ,649" | -,545" | -,475" | . 220 | ,441" | -,777" | -. 037 | ,323* | . 235 | . 302 |
|  | Sig. (2-tailed) |  | . 267 | . 033 | . 000 | . 000 | . 271 | . 000 | . 000 | . 002 | . 168 | . 004 | . 000 | . 820 | . 039 | . 138 | . 055 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | . 177 | 1 | -,763" | -,641" | ,550" | . 130 | ,701" | -,769" | -,612" | -. 175 | ,825" | . 074 | . 032 | ,695" | ,768" | ,729" |
|  | Sig. (2-tailed) | . 267 |  | . 000 | . 000 | . 000 | . 417 | . 000 | . 000 | . 000 | . 274 | . 000 | . 645 | . 844 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | -,333* | -,763" | 1 | ,504" | -,683" | -. 213 | -,826" | ,844" | ,923" | -. 236 | -,912" | -. 139 | . 048 | -,670" | -,749" | -,694" |
|  | Sig. (2-tailed) | . 033 | . 000 |  | . 001 | . 000 | . 182 | . 000 | . 000 | . 000 | . 138 | . 000 | . 385 | . 769 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -,835** | -,641** | ,504" | 1 | -,917" | -. 156 | -,791" | ,754" | ,534" | . 041 | -,689" | ,636" | -. 016 | -,563" | -,520" | -,566" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 001 |  | . 000 | . 331 | . 000 | . 000 | . 000 | . 798 | . 000 | . 000 | . 923 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,890" | ,550" | -,683" | -,917" | 1 | . 193 | ,897" | -,842" | -,746" | . 188 | ,793" | -,559" | -. 024 | ,579" | ,550" | ,582"* |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 |  | . 227 | . 000 | . 000 | . 000 | . 239 | . 000 | . 000 | . 881 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | . 176 | . 130 | -. 213 | -. 156 | . 193 | 1 | . 145 | $-, 310^{*}$ | -. 235 | ,678" | . 125 | . 128 | . 291 | ,425" | ,391* | ,364* |
|  | Sig. (2-tailed) | . 271 | . 417 | . 182 | . 331 | . 227 |  | . 366 | . 048 | . 139 | . 000 | . 437 | . 423 | . 068 | . 006 | . 012 | . 019 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | ,649" | ,701" | -,826" | -,791" | ,897" | . 145 | 1 | -,959" | -,857" | . 109 | ,949" | $-, 312^{*}$ | . 040 | ,733" | ,736" | ,743" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 366 |  | . 000 | . 000 | . 497 | . 000 | . 047 | . 804 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -,545" | -,769" | ,844" | ,754* | -,842" | -,310* | -,959" | 1 | ,809" | -. 206 | -,962" | . 168 | -. 110 | -,809" | -,831" | -,825" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 048 | . 000 |  | . 000 | . 197 | . 000 | . 295 | . 498 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | -,475" | -,612" | ,923" | ,534" | -,746" | -. 235 | -,857" | ,809" | 1 | -,318* | -,865" | . 051 | . 032 | -,624" | -,646" | -,632" |
|  | Sig. (2-tailed) | . 002 | . 000 | . 000 | . 000 | . 000 | . 139 | . 000 | . 000 |  | . 043 | . 000 | . 752 | . 847 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | . 220 | -. 175 | -. 236 | . 041 | . 188 | ,678" | . 109 | -. 206 | -,318* | 1 | . 071 | . 036 | . 122 | . 130 | . 106 | . 127 |
|  | Sig. (2-tailed) | . 168 | . 274 | . 138 | . 798 | . 239 | . 000 | . 497 | . 197 | . 043 |  | . 657 | . 824 | . 453 | . 419 | . 510 | . 430 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | ,441" | ,825** | -,912" | -,689" | ,793" | . 125 | ,949** | -,962" | -,865" | . 071 | 1 | -. 070 | . 026 | ,761" | ,809** | ,792" |
|  | Sig. (2-tailed) | . 004 | . 000 | . 000 | . 000 | . 000 | . 437 | . 000 | . 000 | . 000 | . 657 |  | . 664 | . 876 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | -,777* | . 074 | -. 139 | ,636" | -,559" | . 128 | -,312* | . 168 | . 051 | . 036 | -. 070 | 1 | . 030 | . 078 | . 194 | . 078 |
|  | Sig. (2-tailed) | . 000 | . 645 | . 385 | . 000 | . 000 | . 423 | . 047 | . 295 | . 752 | . 824 | . 664 |  | . 853 | . 626 | . 223 | . 630 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | -. 037 | . 032 | . 048 | -. 016 | -. 024 | . 291 | . 040 | -. 110 | . 032 | . 122 | . 026 | . 030 | 1 | . 217 | . 189 | . 205 |
|  | Sig. (2-tailed) | . 820 | . 844 | . 769 | . 923 | . 881 | . 068 | . 804 | . 498 | . 847 | . 453 | . 876 | . 853 |  | . 178 | . 242 | . 204 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | ,323* | ,695" | -,670" | -,563" | ,579" | ,425" | ,733* | -,809" | -,624" | . 130 | ,761" | . 078 | . 217 | 1 | ,975" | ,983" |
|  | Sig. (2-tailed) | . 039 | . 000 | . 000 | . 000 | . 000 | . 006 | . 000 | . 000 | . 000 | . 419 | . 000 | . 626 | . 178 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | . 235 | ,768" | -,749" | -,520" | ,550" | ,391* | ,736" | -,831" | -,646" | . 106 | ,809" | . 194 | . 189 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 138 | . 000 | . 000 | . 000 | . 000 | . 012 | . 000 | . 000 | . 000 | . 510 | . 000 | . 223 | . 242 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | . 302 | ,729** | -,694" | -,566" | ,582" | ,364* | ,743** | -,825" | -,632" | . 127 | ,792" | . 078 | . 205 | ,983" | ,966" | 1 |
|  | Sig. (2-tailed) | . 055 | . 000 | . 000 | . 000 | . 000 | . 019 | . 000 | . 000 | . 000 | . 430 | . 000 | . 630 | . 204 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| Fl 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -. 049 | -. 139 | -,819" | ,891** | . 043 | ,601" | -,439* | -. 332 | . 186 | . 253 | -,852" | -. 234 | -. 315 | -. 214 |
|  | Sig. (2-tailed) |  | . 798 | . 463 | . 000 | . 000 | . 823 | . 000 | . 015 | . 073 | . 324 | . 177 | . 000 | . 212 | . 090 | . 257 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -. 049 | 1 | -,636" | -,467" | . 334 | -,556" | ,566" | -,672" | -,384* | -,552" | ,769" | . 081 | ,724" | ,729" | ,713" |
|  | Sig. (2-tailed) | . 798 |  | . 000 | . 009 | . 071 | . 001 | . 001 | . 000 | . 036 | . 002 | . 000 | . 672 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | -. 139 | -,636" | 1 | . 248 | -,508* | . 281 | -,742" | ,768* | ,875* | -. 107 | -,876" | -. 195 | -,525* | -,661" | -,506" |
|  | Sig. (2-tailed) | . 463 | . 000 |  | . 187 | . 004 | . 132 | . 000 | . 000 | . 000 | . 575 | . 000 | . 303 | . 003 | . 000 | . 004 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,819" | -,467" | . 248 | 1 | -,887** | . 283 | -,721* | ,652" | . 287 | . 269 | -,514** | ,787" | -. 143 | -. 027 | -. 167 |
|  | Sig. (2-tailed) | . 000 | . 009 | . 187 |  | . 000 | . 130 | . 000 | . 000 | . 124 | . 150 | . 004 | . 000 | . 452 | . 887 | . 378 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,891" | . 334 | -,508" | -,887* | 1 | -. 181 | ,872* | -,779** | -,603" | . 070 | ,657* | -,696" | . 098 | . 062 | . 123 |
|  | Sig. (2-tailed) | 000 | . 071 | . 004 | . 000 |  | . 338 | . 000 | . 000 | . 000 | . 715 | . 000 | . 000 | . 608 | . 744 | . 516 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | . 043 | -,556" | . 281 | . 283 | -. 181 | 1 | -,408* | . 292 | . 245 | ,689" | -,470" | . 121 | -,413* | -. 322 | -,524" |
|  | Sig. (2-tailed) | . 823 | . 001 | . 132 | . 130 | . 338 |  | . 025 | . 117 | . 193 | . 000 | . 009 | . 524 | . 023 | . 083 | . 003 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | ,601" | ,566" | -,742" | -,721" | ,872"* | -,408* | 1 | -,924** | -,798" | -. 068 | ,898* | --450* | . 285 | . 303 | . 343 |
|  | Sig. (2-tailed) | . 000 | . 001 | . 000 | . 000 | . 000 | . 025 |  | . 000 | . 000 | . 721 | . 000 | . 013 | . 127 | . 104 | . 063 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -,439* | -,672" | ,768" | ,652" | -,779** | . 292 | -,924" | 1 | ,682" | . 042 | -,946** | . 255 | -,506" | -,545" | -,534" |
|  | Sig. (2-tailed) | . 015 | . 000 | . 000 | . 000 | . 000 | . 117 | . 000 |  | . 000 | . 827 | . 000 | . 174 | . 004 | . 002 | . 002 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | -. 332 | -,384* | ,875" | . 287 | -,603" | . 245 | -,798" | ,682" | 1 | -. 248 | -,785" | . 058 | -. 143 | -. 265 | -. 190 |
|  | Sig. (2-tailed) | . 073 | . 036 | . 000 | . 124 | . 000 | . 193 | . 000 | . 000 |  | . 186 | . 000 | . 760 | . 452 | . 157 | . 315 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | . 186 | -,552" | -. 107 | . 269 | . 070 | ,689" | -. 068 | . 042 | -. 248 | 1 | -. 141 | . 096 | -. 338 | -. 202 | -,390* |
|  | Sig. (2-tailed) | . 324 | . 002 | . 575 | . 150 | . 715 | . 000 | . 721 | . 827 | . 186 |  | . 458 | . 612 | . 068 | . 285 | . 033 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | . 253 | ,769" | -,876" | -,514" | ,657** | -,470" | ,898* | -,946** | -,785" | -. 141 | 1 | -. 070 | ,578" | ,638" | ,624" |
|  | Sig. (2-tailed) | . 177 | . 000 | . 000 | . 004 | . 000 | . 009 | . 000 | . 000 | . 000 | . 458 |  | . 712 | . 001 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | -,852" | . 081 | -. 195 | ,787" | -,696** | . 121 | -, $450^{*}$ | . 255 | . 058 | . 096 | -. 070 | 1 | ,373* | ,507" | . 318 |
|  | Sig. (2-tailed) | . 000 | . 672 | . 303 | . 000 | . 000 | . 524 | . 013 | . 174 | . 760 | . 612 | . 712 |  | . 042 | . 004 | . 087 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -. 234 | ,724" | -,525" | -. 143 | . 098 | -,413* | . 285 | -,506** | -. 143 | -. 338 | ,578* | ,373* | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 212 | . 000 | . 003 | . 452 | . 608 | . 023 | . 127 | . 004 | . 452 | . 068 | . 001 | . 042 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -. 315 | ,729" | -,661" | -. 027 | . 062 | -. 322 | . 303 | -,545** | -. 265 | -. 202 | ,638** | ,507* | ,931* | 1 | ,877** |
|  | Sig. (2-tailed) | . 090 | . 000 | . 000 | . 887 | . 744 | . 083 | . 104 | . 002 | . 157 | . 285 | . 000 | . 004 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -. 214 | ,713" | -,506" | -. 167 | . 123 | -,524" | . 343 | -,534* | -. 190 | -,390 | ,624* | . 318 | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 257 | . 000 | . 004 | . 378 | . 516 | . 003 | . 063 | . 002 | . 315 | . 033 | . 000 | . 087 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| FR 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | FR 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 1672209.0 | 2481485.0 | 2216511.537 | 217794.1650 | L_E_area_Non_MFIs | 30 | 2111284.0 | 2481485.0 | 2323432.133 | 106705.7704 |
| L1 | 41 | 35.3101\% | 37.0635\% | 36.175415\% | .4318747\% | L1 | 30 | 35.3101\% | 37.0635\% | 36.057724\% | .4245274\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 152022.0 | 317814.0 | 210619.780 | 39450.5744 | L_EU_memb_Non_EMU_MFIs | 30 | 152022.0 | 237496.0 | 193599.167 | 23586.9555 |
| L2 | 41 | 2.2370\% | 6.2518\% | 3.526330\% | 1.0197325\% | L2 | 30 | 2.2370\% | 3.8415\% | 3.019176\% | .4556551\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 16804.0 | 105567.0 | 65919.659 | 31464.5817 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 35936.0 | 105567.0 | 80136.600 | 23894.8624 |
| L3 | 41 | . $3691 \%$ | 1.5800\% | 1.036456\% | .4314752\% | L3 | 30 | .6123\% | 1.5800\% | 1.229652\% | . $3317378 \%$ |
| L_Domestic_MFls | 41 | 1031217.0 | 1789630.0 | 1517419.951 | 215577.5577 | L_Domestic_MFIs | 30 | 1413866.0 | 1789630.0 | 1625486.133 | 108366.1371 |
| L4 | 41 | 22.2311\% | 26.5973\% | 24.653239\% | 1.2901374\% | L4 | 30 | 23.1581\% | 26.5973\% | 25.211619\% | .9087910\% |
| L_Domestic_Non_MFIs | 41 | 1615219.0 | 2391459.0 | 2120609.000 | 210876.4299 | L_Domestic_Non_MFIs | 30 | 2004414.0 | 2391459.0 | 2222459.233 | 114648.5561 |
| L5 | 41 | 33.6575\% | 35.4763\% | 34.608561\% | .4724936\% | L5 | 30 | 33.6575\% | 35.1698\% | 34.481828\% | .4507566\% |
| Total loans (MFIs) | 41 | 1248715.0 | 1953792.0 | 1728039.732 | 187773.1045 | Total loans (MFIs) | 30 | 1641306.0 | 1953792.0 | 1819085.300 | 98278.6085 |
| Total loans (non-MFIs) | 41 | 3304232.0 | 4965322.0 | 4403040.195 | 456985.7321 | Total loans (non-MFIs) | 30 | 4158287.0 | 4965322.0 | 4626027.967 | 242506.1771 |
| TOTAL LOANS | 41 | 4552947.0 | 6909520.0 | 6131079.927 | 635086.4561 | TOTAL LOANS | 30 | 5799593.0 | 6909520.0 | 6445113.267 | 317321.1279 |
| D_E_area_MFIs | 41 | 1291085.0 | 2050236.0 | 1786209.512 | 203492.3504 | D_E_area_MFIs | 30 | 1643678.0 | 2050236.0 | 1880695.300 | 99909.9785 |
| D1 | 41 | 23.1583\% | 27.5365\% | 25.068896\% | 1.0984950\% | D1 | 30 | 23.1583\% | 26.8053\% | 24.776825\% | 1.0638483\% |
| D_E_area_Non_MFls | 41 | 1287594.0 | 2257657.0 | 1786571.585 | 288518.8646 | D_E_area_Non_MFls | 30 | 1558085.0 | 2257657.0 | 1925861.933 | 192490.2768 |
| D2 | 41 | 22.5018\% | 27.7022\% | 24.924200\% | 1.3060914\% | D2 | 30 | 23.3175\% | 27.7022\% | 25.289415\% | 1.2760502\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 234137.0 | 433321.0 | 323453.390 | 56135.1856 | D_EU_memb_Non_EMU_MFIs | 30 | 234137.0 | 379733.0 | 301070.833 | 38493.5991 |
| D3 | 41 | 2.9079\% | 7.3337\% | 4.677025\% | 1.3382459\% | D3 | 30 | 2.9079\% | 5.5352\% | 3.998302\% | .7201227\% |
| D_EU_memb_Non_EMU_Non_MFls | 41 | 6651.0 | 98528.0 | 51501.098 | 33652.3906 | D_EU_memb_Non_EMU_Non_MFls | 30 | 14236.0 | 98528.0 | 66306.400 | 26667.8709 |
| D4 | 41 | .1258\% | 1.2514\% | .675146\% | .4057056\% | D4 | 30 | .2130\% | 1.2514\% | .855089\% | .3182812\% |
| D_Domestic_MFls | 41 | 1028386.0 | 1808571.0 | 1536810.878 | 217798.1528 | D_Domestic_MFls | 30 | 1423121.0 | 1808571.0 | 1643709.433 | 99704.6438 |
| D5 | 41 | 19.9657\% | 23.4767\% | 21.483453\% | 1.0128468\% | D5 | 30 | 20.1099\% | 23.2444\% | 21.647294\% | .9639100\% |
| D_Domestic_Non_MFls | 41 | 1222899.0 | 2036634.0 | 1659625.902 | 257782.4889 | D_Domestic_Non_MFls | 30 | 1458800.0 | 2036634.0 | 1784512.933 | 172177.7033 |
| D6 | 41 | 21.0380\% | 25.0830\% | 23.171279\% | 1.0842033\% | D6 | 30 | 21.5645\% | 25.0830\% | 23.433074\% | 1.0183238\% |
| Total deposits (MFIs) | 41 | 2595917.0 | 4213149.0 | 3646473.780 | 395315.5166 | Total deposits (MFIs) | 30 | 3435877.0 | 4213149.0 | 3825475.567 | 190688.6487 |
| Total deposits (non-MFIs) | 41 | 2517561.0 | 4384996.0 | 3497698.585 | 577693.1134 | Total deposits (non-MFIs) | 30 | 3031121.0 | 4384996.0 | 3776681.267 | 387603.3516 |
| TOTAL DEPOSITS | 41 | 5126190.0 | 8162380.0 | 7144172.366 | 915595.6284 | TOTAL DEPOSITS | 30 | 6682055.0 | 8162380.0 | 7602156.833 | 485428.8688 |
| LTD gap | 41 | 2022674.0 | 2907226.0 | 2633381.341 | 189197.9139 | LTD gap | 30 | 2453042.0 | 2907226.0 | 2668432.000 | 114307.7517 |
| LTD | 41 | 1.5661524 | 1.9971578 | 1.7722627 | 0.1306479 | LTD | 30 | 1.5661524 | 1.9216501 | 1.7164415 | 0.1013300 |
| GLTDFq | 40 | -6.2680931 | 7.0381516 | 0.7313586 | 1.8992177 | GLTDFq | 30 | -1.4118000 | 1.9920683 | 0.4703632 | 0.8713194 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| FR 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | ,415" | -,505" | -,816" | ,880" | . 000 | . 036 | ,484" | -,542" | -,462" | -. 008 | ,355* | . 193 | ,443" | ,398* | ,457" |
|  | Sig. (2-tailed) |  | . 007 | . 001 | . 000 | . 000 | . 998 | . 822 | . 001 | . 000 | . 002 | . 961 | . 023 | . 234 | . 004 | . 010 | . 003 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | ,415* | 1 | -,761" | -,784* | . 298 | ,419" | -,515" | ,935" | -,781" | -. 235 | -,447* | ,775" | . 286 | ,871" | ,901" | ,829" |
|  | Sig. (2-tailed) | . 007 |  | . 000 | . 000 | . 058 | . 006 | . 001 | . 000 | . 000 | . 139 | . 003 | . 000 | . 074 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | -,505* | -,761" | 1 | ,548* | -. 306 | -,666" | ,648* | -,845** | ,980" | -. 065 | ,632** | -,861" | -. 233 | -,748* | -,770" | -,759" |
|  | Sig. (2-tailed) | . 001 | . 000 |  | . 000 | . 052 | . 000 | . 000 | . 000 | . 000 | . 685 | . 000 | . 000 | . 148 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -,816" | -,784" | ,548" | 1 | -,794" | -. 001 | . 052 | -,722" | ,591" | ,634" | . 016 | -,460" | -. 246 | -,713* | -,676" | -,669" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 |  | . 000 | . 995 | . 747 | . 000 | . 000 | . 000 | . 920 | . 002 | . 126 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,880" | . 298 | -. 306 | -,794* | 1 | -. 294 | ,343* | . 284 | -,329* | -,742" | ,350* | . 046 | . 083 | ,344* | . 241 | , $313^{*}$ |
|  | Sig. (2-tailed) | . 000 | . 058 | . 052 | . 000 |  | . 062 | . 028 | . 072 | . 036 | . 000 | . 025 | . 775 | . 608 | . 028 | . 128 | . 046 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | . 000 | ,419** | -,666** | -. 001 | -. 294 | 1 | -,969" | ,574* | -,673* | ,701" | -,957** | ,845* | . 185 | ,542" | ,608" | ,616" |
|  | Sig. (2-tailed) | . 998 | . 006 | . 000 | . 995 | . 062 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 254 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | . 036 | -,515" | ,648" | . 052 | ,343 | -,969" | 1 | -,654" | ,665" | -,677" | ,969" | -,875" | -. 200 | -,590" | -,670" | -,648" |
|  | Sig. (2-tailed) | . 822 | . 001 | . 000 | . 747 | . 028 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 217 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | ,484" | ,935* | -,845" | -,722* | . 284 | ,574" | -,654* | 1 | -,874" | -. 077 | -,629" | ,901" | ,328* | ,922" | ,946" | ,912" |
|  | Sig. (2-tailed) | . 001 | . 000 | . 000 | . 000 | . 072 | . 000 | . 000 |  | . 000 | . 634 | . 000 | . 000 | . 039 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | -,542" | -,781" | ,980" | ,591" | -,329* | -,673" | ,665" | -,874" | 1 | -. 064 | ,646" | -,885" | -. 233 | -,763* | -,790" | -,782" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 036 | . 000 | . 000 | . 000 |  | . 691 | . 000 | . 000 | . 148 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -,462" | -. 235 | -. 065 | ,634* | -,742" | ,701" | -,677" | -. 077 | -. 064 | 1 | -,710" | ,313* | . 009 | -. 149 | -. 063 | -. 060 |
|  | Sig. (2-tailed) | . 002 | . 139 | . 685 | . 000 | . 000 | . 000 | . 000 | . 634 | . 691 |  | . 000 | . 046 | . 956 | . 354 | . 697 | . 707 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | -. 008 | -,447* | ,632" | . 016 | ,350 | -,957" | ,969" | -,629" | ,646" | -,710" | 1 | -,875" | -. 275 | -,551" | -,623" | -,619" |
|  | Sig. (2-tailed) | . 961 | . 003 | . 000 | . 920 | . 025 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 086 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | ,355* | ,775* | -,861" | -,460" | . 046 | ,845" | -,875" | ,901* | -,885* | ,313 | -,875" | 1 | ,330 | ,822" | ,878* | ,858"' |
|  | Sig. (2-tailed) | . 023 | . 000 | . 000 | . 002 | . 775 | . 000 | . 000 | . 000 | . 000 | . 046 | . 000 |  | . 038 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | . 193 | . 286 | -. 233 | -. 246 | . 083 | . 185 | -. 200 | ,328* | -. 233 | . 009 | -. 275 | ,330* | 1 | ,395* | ,369* | ,352* |
|  | Sig. (2-tailed) | . 234 | . 074 | . 148 | . 126 | . 608 | . 254 | . 217 | . 039 | . 148 | . 956 | . 086 | . 038 |  | . 012 | . 019 | . 026 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | ,443" | ,871* | -,748* | -,713* | ,344* | ,542" | -,590" | ,922" | -,763" | -. 149 | -,551" | ,822* | ,395* | 1 | ,975* | ,983" |
|  | Sig. (2-tailed) | . 004 | . 000 | . 000 | . 000 | . 028 | . 000 | . 000 | . 000 | . 000 | . 354 | . 000 | . 000 | . 012 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | ,398* | ,901* | -,770" | -,676" | . 241 | ,608" | -,670" | ,946" | -,790" | -. 063 | -,623" | ,878* | ,369* | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 010 | . 000 | . 000 | . 000 | . 128 | . 000 | . 000 | . 000 | . 000 | . 697 | . 000 | . 000 | . 019 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | ,457" | ,829** | -,759" | -,669** | ,313* | ,616" | -,648* | ,912" | -,782" | -. 060 | -,619" | ,858* | ,352* | ,983" | ,966" | 1 |
|  | Sig. (2-tailed) | . 003 | . 000 | . 000 | . 000 | . 046 | . 000 | . 000 | . 000 | . 000 | . 707 | . 000 | . 000 | . 026 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| FR 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | . 273 | -. 306 | -,913** | ,849" | -. 268 | . 313 | . 315 | -,364* | -,448* | . 203 | . 091 | . 070 | -. 064 | . 127 |
|  | Sig. (2-tailed) |  | . 145 | . 100 | . 000 | . 000 | . 153 | . 093 | . 090 | . 048 | . 013 | . 282 | . 632 | . 713 | . 738 | . 505 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | . 273 | 1 | -,505" | -. 339 | -. 212 | ,489" | -,593" | ,905* | -,575" | ,448* | -,652" | ,799" | ,807" | ,825* | ,719" |
|  | Sig. (2-tailed) | . 145 |  | . 004 | . 067 | . 260 | . 006 | . 001 | . 000 | . 001 | . 013 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | -. 306 | -,505" | 1 | -. 003 | . 069 | -,648" | ,578" | -,724" | ,962"* | -,549" | ,684" | -,793" | -. 356 | -,428* | -,384* |
|  | Sig. (2-tailed) | . 100 | . 004 |  | . 988 | . 718 | . 000 | . 001 | . 000 | . 000 | . 002 | . 000 | . 000 | . 053 | . 018 | . 036 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,913" | -. 339 | -. 003 | 1 | -,811" | ,427* | -,404* | -. 240 | . 094 | ,563" | -. 333 | . 047 | -. 116 | . 043 | -. 127 |
|  | Sig. (2-tailed) | . 000 | . 067 | . 988 |  | . 000 | . 019 | . 027 | . 202 | . 621 | . 001 | . 072 | . 807 | . 540 | . 820 | . 504 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,849" | -. 212 | . 069 | -,811" | 1 | -,626" | ,694* | -. 195 | . 026 | -,762" | ,636" | -,404* | -,385* | -,547** | -. 309 |
|  | Sig. (2-tailed) | . 000 | . 260 | . 718 | . 000 |  | . 000 | . 000 | . 301 | . 891 | . 000 | . 000 | . 027 | . 036 | . 002 | . 097 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -. 268 | ,489" | -,648* | ,427* | -,626" | 1 | -,968* | ,612" | -,661" | ,961" | -,967" | ,868" | ,665" | ,731* | ,653" |
|  | Sig. (2-tailed) | . 153 | . 006 | . 000 | . 019 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | . 313 | -,593" | ,578" | -,404* | ,694" | -,968" | 1 | -,681" | ,603" | -,975" | ,975" | -,876" | -,727" | -,800" | -,678" |
|  | Sig. (2-tailed) | . 093 | . 001 | . 001 | . 027 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | . 315 | ,905" | -,724* | -. 240 | -. 195 | ,612" | -,681" | 1 | -,791" | ,543" | -,760" | ,890" | ,741" | ,777" | ,734" |
|  | Sig. (2-tailed) | . 090 | . 000 | . 000 | . 202 | . 301 | . 000 | . 000 |  | . 000 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | -,364 ${ }^{\circ}$ | -,575" | ,962" | . 094 | . 026 | -,661" | ,603" | -,791" | 1 | -,544" | ,697" | -,831" | -,438* | -,483" | -,502" |
|  | Sig. (2-tailed) | . 048 | . 001 | . 000 | . 621 | . 891 | . 000 | . 000 | . 000 |  | . 002 | . 000 | . 000 | . 016 | . 007 | . 005 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -,448 | ,448 | -,549" | ,563" | -,762" | ,961" | -,975" | ,543" | -,544" | 1 | -,942" | ,795" | ,616" | ,700" | ,547" |
|  | Sig. (2-tailed) | . 013 | . 013 | . 002 | . 001 | . 000 | . 000 | . 000 | . 002 | . 002 |  | . 000 | . 000 | . 000 | . 000 | . 002 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | . 203 | -,652" | ,684" | -. 333 | ,636" | -,967* | ,975* | -,760" | ,697" | -,942" | 1 | -,931" | -,753" | -,822" | -,712" |
|  | Sig. (2-tailed) | . 282 | . 000 | . 000 | . 072 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | . 091 | ,799" | -,793* | . 047 | -,404* | ,868* | -,876" | ,890" | -,831" | ,795" | -,931" | 1 | ,776" | ,849" | ,763* |
|  | Sig. (2-tailed) | . 632 | . 000 | . 000 | . 807 | . 027 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | . 070 | ,807* | -. 356 | -. 116 | -,385* | ,665* | -,727* | ,741* | -,438* | ,616" | -,753" | ,776" | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 713 | . 000 | . 053 | 540 | . 036 | . 000 | . 000 | . 000 | . 016 | . 000 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -. 064 | ,825* | -,428* | . 043 | -,547** | ,731* | -,800** | ,777* | -,483* | ,700" | -,822" | ,849" | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 738 | . 000 | . 018 | . 820 | . 002 | . 000 | . 000 | . 000 | . 007 | . 000 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | . 127 | ,719" | -,384* | -. 127 | -. 309 | ,653* | -,678* | ,734** | -,502" | ,547* | -,712" | ,763* | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 505 | . 000 | . 036 | . 504 | . 097 | . 000 | . 000 | . 000 | . 005 | . 002 | . 000 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| IE 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | IE 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 170419.0 | 421226.0 | 307242.512 | 81023.0971 | L_E_area_Non_MFIs | 30 | 170419.0 | 401002.0 | 280699.667 | 76643.7612 |
| L1 | 41 | 32.9826\% | 37.9968\% | 35.613881\% | 1.4482602\% | L1 | 30 | 32.9826\% | 37.3562\% | 35.155293\% | 1.3360203\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 82468.0 | 163855.0 | 127278.780 | 23266.8325 | L_EU_memb_Non_EMU_MFIs | 30 | 87043.0 | 163855.0 | 125500.767 | 22870.4190 |
| L2 | 41 | 9.8217\% | 20.0690\% | 15.240337\% | 2.3726474\% | L2 | 30 | 13.3317\% | 20.0690\% | 16.163596\% | 1.9265721\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 20693.0 | 43487.0 | 29942.829 | 6104.3208 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 21079.0 | 43487.0 | 29648.600 | 6145.8775 |
| L3 | 41 | 2.4645\% | 5.6215\% | 3.593353\% | .6912361\% | L3 | 30 | 2.9137\% | 5.6215\% | 3.825334\% | .6354359\% |
| L_Domestic_MFIs | 41 | 62879.0 | 196470.0 | 122431.390 | 49041.5766 | L_Domestic_MFIs | 30 | 62879.0 | 194603.0 | 112091.233 | 52569.6471 |
| L4 | 41 | 9.4658\% | 18.5846\% | 13.797696\% | 2.7292382\% | L4 | 30 | 9.4658\% | 18.5846\% | 13.474024\% | 2.9538810\% |
| L_Domestic_Non_MFls | 41 | 153093.0 | 375705.0 | 273079.366 | 69653.2715 | L_Domestic_Non_MFls | 30 | 153093.0 | 360023.0 | 249424.533 | 64404.1663 |
| L5 | 41 | 28.5258\% | 33.9221\% | 31.754733\% | 1.3761758\% | L5 | 30 | 28.5258\% | 33.9221\% | 31.381754\% | 1.3754323\% |
| Total loans (MFIs) | 41 | 156605.0 | 352525.0 | 249710.171 | 67775.0876 | Total loans (MFIs) | 30 | 156605.0 | 352525.0 | 237592.000 | 73014.6451 |
| Total loans (non-MFIs) | 41 | 345840.0 | 833561.0 | 610264.707 | 154632.3581 | Total loans (non-MFIs) | 30 | 345840.0 | 796330.0 | 559772.800 | 145574.2722 |
| TOTAL LOANS | 41 | 504071.0 | 1157516.0 | 859974.878 | 217903.2472 | TOTAL LOANS | 30 | 504071.0 | 1135757.0 | 797364.800 | 215750.2929 |
| D_E_area_MFIs | 41 | 105442.0 | 515957.0 | 294280.756 | 127863.3168 | D_E_area_MFIs | 30 | 105442.0 | 515957.0 | 284172.933 | 144551.7381 |
| D1 | 41 | 17.6509\% | 35.2939\% | 27.597334\% | 5.4430013\% | D1 | 30 | 17.6509\% | 35.2939\% | 27.010033\% | 6.1755685\% |
| D_E_area_Non_MFls | 41 | 186290.0 | 231537.0 | 214600.049 | 9403.8853 | D_E_area_Non_MFIs | 30 | 202794.0 | 231537.0 | 215640.400 | 7909.1077 |
| D2 | 41 | 14.8611\% | 35.1752\% | 22.677741\% | 6.1938447\% | D2 | 30 | 14.8611\% | 35.1752\% | 23.856891\% | 6.8402103\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 40133.0 | 209628.0 | 119373.610 | 59658.5282 | D_EU_memb_Non_EMU_MFIs | 30 | 40133.0 | 201367.0 | 99427.033 | 55469.6779 |
| D3 | 41 | 6.7182\% | 18.1243\% | 11.193278\% | 3.6281891\% | D3 | 30 | 6.7182\% | 15.0394\% | 9.503944\% | 2.5160354\% |
| D_EU_memb_Non_EMU_Non_MFls | 41 | 8720.0 | 46609.0 | 27517.146 | 10797.0133 | D_EU_memb_Non_EMU_Non_MFls | 30 | 8720.0 | 39440.0 | 23038.033 | 8803.2798 |
| D4 | 41 | 1.4152\% | 4.6125\% | 2.697637\% | .8705651\% | D4 | 30 | 1.4152\% | 3.6286\% | 2.340176\% | .6650661\% |
| D_Domestic_MFIs | 41 | 52629.0 | 357029.0 | 181170.439 | 90891.1896 | D_Domestic_MFIs | 30 | 52629.0 | 357029.0 | 183998.067 | 104147.5417 |
| D5 | 41 | 8.8100\% | 26.2899\% | 16.770444\% | 4.9820566\% | D5 | 30 | 8.8100\% | 26.2899\% | 17.159856\% | 5.7091456\% |
| D_Domestic_Non_MFls | 41 | 159140.0 | 194479.0 | 179219.659 | 8682.1738 | D_Domestic_Non_MFls | 30 | 165307.0 | 194479.0 | 180569.667 | 8868.4764 |
| D6 | 41 | 12.4252\% | 30.1860\% | 19.063566\% | 5.7174321\% | D6 | 30 | 12.4252\% | 30.1860\% | 20.129099\% | 6.3297492\% |
| Total deposits (MFIs) | 41 | 198204 | 1040416 | 594824.80 | 263506.312 | Total deposits (MFIs) | 30 | 198204 | 1040416 | 567598.03 | 296602.648 |
| Total deposits (non-MFIs) | 41 | 382235 | 449175 | 421336.85 | 21614.985 | Total deposits (non-MFIs) | 30 | 393523 | 448608 | 419248.10 | 21537.642 |
| TOTAL DEPOSITS | 41 | 597376.0 | 1485284.0 | 1016161.659 | 273295.5513 | TOTAL DEPOSITS | 30 | 597376.0 | 1485284.0 | 986846.133 | 306152.1982 |
| LTD gap | 41 | 110264 | 708341 | 438638.02 | 206876.732 | LTD gap | 30 | 110264 | 691883 | 378116.70 | 205850.568 |
| LTD | 41 | 1.2799950 | 2.6263178 | 2.0320237 | 0.4687111 | LTD | 30 | 1.2799950 | 2.5601293 | 1.8939452 | 0.4714524 |
| GLTDFq | 40 | -27.3017751 | 127.9692308 | 6.0059766 | 27.2946750 | GLTDFq | 30 | -27.3017751 | 127.9692308 | 7.1306004 | 31.5106993 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| IE 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,551" | -,686" | -. 237 | ,712" | . 198 | -. 268 | . 276 | ,517" | . 165 | -. 295 | ,330* | -. 016 | ,565" | ,609" | ,568" |
|  | Sig. (2-tailed) |  | . 000 | . 000 | . 136 | . 000 | . 215 | . 090 | . 081 | . 001 | . 303 | . 061 | . 035 | . 921 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | -,551" | 1 | ,737" | -,625" | -. 274 | -,653" | ,725" | -,692" | -,436" | -,427" | ,714" | -,769" | . 035 | -,664" | -,754" | -,704" |
|  | Sig. (2-tailed) | . 000 |  | . 000 | . 000 | . 083 | . 000 | . 000 | . 000 | . 004 | . 005 | . 000 | . 000 | . 829 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | -,686" | ,737* | 1 | -. 277 | -,501" | -,549" | ,641" | -,584" | -,617" | -,382* | ,626* | -,648* | -. 037 | -,607" | -,681" | -,631" |
|  | Sig. (2-tailed) | . 000 | . 000 |  | . 079 | . 001 | . 000 | . 000 | . 000 | . 000 | . 014 | . 000 | . 000 | . 820 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -. 237 | -,625" | -. 277 | 1 | -,517" | ,701" | -,699" | ,480" | -. 073 | ,539" | -,673" | ,677" | -. 035 | . 223 | . 307 | . 288 |
|  | Sig. (2-tailed) | . 136 | . 000 | . 079 |  | . 001 | . 000 | . 000 | . 001 | . 650 | . 000 | . 000 | . 000 | . 833 | . 161 | . 051 | . 068 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,712" | -. 274 | -,501" | -,517* | 1 | -. 197 | . 097 | . 244 | ,664" | -,314* | . 100 | -. 038 | . 046 | ,412" | ,391* | ,361* |
|  | Sig. (2-tailed) | . 000 | . 083 | . 001 | . 001 |  | . 217 | . 545 | . 124 | . 000 | . 046 | . 536 | . 812 | . 776 | . 007 | . 011 | . 020 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | . 198 | -,653* | -,549" | ,701* | -. 197 | 1 | -,979** | ,486" | -. 020 | ,900" | -,981" | ,923" | . 150 | , $314{ }^{*}$ | ,466" | ,411" |
|  | Sig. (2-tailed) | . 215 | . 000 | . 000 | . 000 | . 217 |  | . 000 | . 001 | . 902 | . 000 | . 000 | . 000 | . 355 | . 045 | . 002 | . 008 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | -. 268 | ,725* | ,641* | -,699** | . 097 | -,979" | 1 | -,630" | -. 158 | -,831" | ,996** | -,968" | -. 107 | -,457" | -,594" | -,534" |
|  | Sig. (2-tailed) | . 090 | . 000 | . 000 | . 000 | . 545 | . 000 |  | . 000 | . 324 | . 000 | . 000 | . 000 | . 510 | . 003 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | . 276 | -,692" | -,584" | ,480" | . 244 | ,486" | -,630" | 1 | ,637" | . 105 | -,603" | ,751" | -. 145 | ,840" | ,848" | ,837" |
|  | Sig. (2-tailed) | . 081 | . 000 | . 000 | . 001 | . 124 | . 001 | . 000 |  | . 000 | . 514 | . 000 | . 000 | . 373 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | ,517" | -,436" | -,617" | -. 073 | ,664" | -. 020 | -. 158 | ,637" | 1 | -. 275 | -. 127 | . 244 | -. 199 | ,679" | ,634" | ,611" |
|  | Sig. (2-tailed) | . 001 | . 004 | . 000 | . 650 | . 000 | 902 | . 324 | . 000 |  | . 081 | . 429 | . 124 | . 217 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | . 165 | -,427" | -,382* | ,539" | -,314* | ,900" | -,831" | . 105 | -. 275 | 1 | -,853" | ,717" | . 272 | . 019 | . 187 | . 114 |
|  | Sig. (2-tailed) | . 303 | . 005 | . 014 | . 000 | . 046 | . 000 | . 000 | . 514 | . 081 |  | . 000 | . 000 | . 090 | . 908 | . 242 | . 477 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | -. 295 | ,714" | ,626" | -,673" | . 100 | -,981" | ,996" | -,603" | -. 127 | -,853" | 1 | -,969" | -. 142 | -,457" | -,598" | -,536" |
|  | Sig. (2-tailed) | . 061 | . 000 | . 000 | . 000 | . 536 | . 000 | . 000 | . 000 | . 429 | . 000 |  | . 000 | . 380 | . 003 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | ,330* | -,769" | -,648" | ,677" | -. 038 | ,923" | -,968" | ,751" | . 244 | ,717" | -,969" | 1 | . 076 | ,630" | ,741" | ,700" |
|  | Sig. (2-tailed) | . 035 | . 000 | . 000 | . 000 | . 812 | . 000 | . 000 | . 000 | . 124 | . 000 | . 000 |  | . 643 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | -. 016 | . 035 | -. 037 | -. 035 | . 046 | . 150 | -. 107 | -. 145 | -. 199 | . 272 | -. 142 | . 076 | 1 | -. 030 | . 017 | -. 021 |
|  | Sig. (2-tailed) | . 921 | . 829 | . 820 | . 833 | . 776 | . 355 | . 510 | . 373 | . 217 | . 090 | . 380 | . 643 |  | . 855 | . 918 | . 900 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | ,565" | -,664" | -,607" | . 223 | ,412" | ,314* | -,457" | ,840" | ,679" | . 019 | -,457" | ,630" | -. 030 | 1 | ,975* | ,983" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 161 | . 007 | . 045 | . 003 | . 000 | . 000 | . 908 | . 003 | . 000 | . 855 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | ,609" | -,754" | -,681" | . 307 | ,391* | ,466" | -,594" | ,848" | ,634" | . 187 | -,598" | ,741" | . 017 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 051 | . 011 | . 002 | . 000 | . 000 | . 000 | . 242 | . 000 | . 000 | . 918 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | ,568** | -,704" | -,631" | . 288 | ,361* | ,411" | -,534" | ,837* | ,611" | . 114 | -,536" | ,700" | -. 021 | ,983" | ,966" | 1 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 068 | . 020 | . 008 | . 000 | . 000 | . 000 | . 477 | . 000 | . 000 | . 900 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| IE 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -. 302 | -,584" | -,400* | ,581" | . 165 | -. 167 | -. 279 | . 219 | . 348 | -. 207 | . 134 | ,410* | ,399 ${ }^{\circ}$ | . 360 |
|  | Sig. (2-tailed) |  | . 105 | . 001 | . 028 | . 001 | . 383 | . 377 | . 136 | . 244 | . 060 | . 273 | . 482 | . 025 | . 029 | . 051 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -. 302 | 1 | ,610" | -,685* | . 083 | -,774* | ,792" | -,582" | -. 022 | -,729" | ,790" | -,801" | -,701" | -,797* | -,692** |
|  | Sig. (2-tailed) | . 105 |  | . 000 | . 000 | . 664 | . 000 | . 000 | . 001 | . 907 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | -,584* | ,610" | 1 | -. 192 | -. 337 | -,597** | ,636" | -,389* | -,414* | -,593" | ,629" | -,590" | -,648" | -,655" | -,611" |
|  | Sig. (2-tailed) | . 001 | . 000 |  | . 310 | . 069 | . 000 | . 000 | . 034 | . 023 | . 001 | . 000 | . 001 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,400* | -,685" | -. 192 | 1 | -,710" | ,706" | -,707" | ,687" | -. 261 | ,572" | -686" | ,747" | ,477" | ,530" | ,533** |
|  | Sig. (2-tailed) | . 028 | . 000 | . 310 |  | . 000 | . 000 | . 000 | . 000 | . 163 | . 001 | . 000 | . 000 | . 008 | . 003 | . 002 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,581" | . 083 | -. 337 | -,710" | 1 | -. 316 | . 278 | -. 211 | ,571" | -. 273 | . 277 | -. 339 | -. 141 | -. 107 | -. 243 |
|  | Sig. (2-tailed) | . 001 | . 664 | . 069 | . 000 |  | . 089 | . 137 | . 264 | . 001 | . 145 | . 138 | . 067 | . 457 | . 573 | . 196 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | . 165 | -,774" | -,597" | ,706" | -. 316 | 1 | -,991" | ,628" | -. 146 | ,949" | -,995" | ,991" | ,858" | ,930" | ,850" |
|  | Sig. (2-tailed) | . 383 | . 000 | . 000 | . 000 | . 089 |  | . 000 | . 000 | . 442 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | -. 167 | ,792" | ,636" | -,707" | . 278 | -,991" | 1 | -,692" | . 043 | -,931" | ,997" | -,992" | -,865" | -,923" | -,838" |
|  | Sig. (2-tailed) | . 377 | . 000 | . 000 | . 000 | . 137 | . 000 |  | . 000 | . 823 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -. 279 | -,582" | -,389* | ,687* | -. 211 | ,628** | -,692" | 1 | . 269 | ,389* | -,641" | ,686" | ,478" | ,509" | ,434* |
|  | Sig. (2-tailed) | . 136 | . 001 | . 034 | . 000 | . 264 | . 000 | . 000 |  | . 151 | . 033 | . 000 | . 000 | . 008 | . 004 | . 017 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | . 219 | -. 022 | -,414* | -. 261 | ,571" | -. 146 | . 043 | . 269 | 1 | -. 223 | . 086 | -. 111 | . 024 | -. 094 | -. 111 |
|  | Sig. (2-tailed) | . 244 | . 907 | . 023 | . 163 | . 001 | . 442 | . 823 | . 151 |  | . 235 | . 651 | . 559 | . 900 | . 622 | . 561 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | . 348 | -,729" | -,593" | ,572" | -. 273 | ,949" | -,931" | ,389 | -. 223 | 1 | -,954" | ,926" | ,866" | ,925" | ,848" |
|  | Sig. (2-tailed) | . 060 | . 000 | . 001 | . 001 | . 145 | . 000 | . 000 | . 033 | . 235 |  | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | -. 207 | ,790" | ,629" | -,686" | . 277 | -,995* | ,997" | -,641" | . 086 | -,954" | 1 | -,991" | -,876" | -,938" | -,850" |
|  | Sig. (2-tailed) | . 273 | . 000 | . 000 | . 000 | . 138 | . 000 | . 000 | . 000 | . 651 | . 000 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | . 134 | -,801" | -,590" | ,747* | -. 339 | ,991* | -,992" | ,686" | -. 111 | ,926" | -,991" | 1 | ,863" | ,923* | ,855** |
|  | Sig. (2-tailed) | . 482 | . 000 | . 001 | . 000 | . 067 | . 000 | . 000 | . 000 | . 559 | . 000 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | ,410 ${ }^{\circ}$ | -,701" | -,648" | ,477* | -. 141 | ,858" | -,865" | ,478" | . 024 | ,866" | -,876" | ,863* | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 025 | . 000 | 000 | . 008 | . 457 | . 000 | . 000 | . 008 | . 900 | . 000 | 000 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | ,399* | -,797* | -,655" | ,530" | -. 107 | ,930" | -,923" | ,509" | -. 094 | ,925" | -,938" | ,923* | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 029 | . 000 | . 000 | . 003 | . 573 | . 000 | . 000 | . 004 | . 622 | . 000 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | . 360 | -,692" | -,611" | ,533" | -. 243 | ,850" | -,838" | ,434* | -. 111 | ,848" | -,850" | ,855" | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 051 | . 000 | . 000 | . 002 | . 196 | . 000 | . 000 | . 017 | . 561 | . 000 | . 000 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| IT 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | IT 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 1336829.0 | 2030246.0 | 1846944.829 | 200454.6044 | L_E_area_Non_MFIs | 30 | 1789071.0 | 2030246.0 | 1948190.933 | 67322.0821 |
| L1 | 41 | 42.8239\% | 45.5322\% | 44.297484\% | .9858886\% | L1 | 30 | 42.8239\% | 45.5322\% | 44.703752\% | .8215599\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 28833.0 | 71041.0 | 49382.488 | 11280.0531 | L_EU_memb_Non_EMU_MFIs | 30 | 28833.0 | 71041.0 | 50366.967 | 12298.9589 |
| L2 | 41 | .6851\% | 1.7307\% | 1.195282\% | .2850977\% | L2 | 30 | .6851\% | 1.5769\% | 1.152435\% | .2667844\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 5744.0 | 10722.0 | 8120.000 | 1308.4255 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 5744.0 | 10535.0 | 8061.967 | 1141.2107 |
| L3 | 41 | .1349\% | . $3164 \%$ | .197588\% | .0433224\% | L3 | 30 | .1349\% | .2415\% | .184960\% | .0255895\% |
| L_Domestic_MFIs | 41 | 358684.0 | 594863.0 | 441336.488 | 72884.0155 | L_Domestic_MFIs | 30 | 358684.0 | 594863.0 | 432296.100 | 76593.2230 |
| L4 | 41 | 8.1115\% | 14.2389\% | 10.714569\% | 2.0902095\% | L4 | 30 | 8.1115\% | 14.2389\% | 9.946195\% | 1.9145182\% |
| L_Domestic_Non_MFIs | 41 | 1319413.0 | 1999962.0 | 1817702.415 | 198321.9780 | L_Domestic_Non_MFls | 30 | 1756701.0 | 1999962.0 | 1918097.433 | 68395.5189 |
| L5 | 41 | 41.9825\% | 44.8469\% | 43.595077\% | 1.0316704\% | L5 | 30 | 42.0491\% | 44.8469\% | 44.012659\% | .8729766\% |
| Total loans (MFIs) | 41 | 410675.0 | 624829.0 | 490718.976 | 64548.4206 | Total loans (MFIs) | 30 | 410675.0 | 624829.0 | 482663.067 | 67248.8547 |
| Total loans (non-MFIs) | 41 | 2662166.0 | 4037796.0 | 3672767.244 | 398622.5790 | Total loans (non-MFIs) | 30 | 3552911.0 | 4037796.0 | 3874350.333 | 136131.8178 |
| TOTAL LOANS | 41 | 3081811.0 | 4508679.0 | 4163486.220 | 389325.1064 | TOTAL LOANS | 30 | 4173038.0 | 4508679.0 | 4357013.400 | 88200.8717 |
| D_E_area_MFIs | 41 | 554817.0 | 852429.0 | 745669.683 | 66965.0189 | D_E_area_MFIs | 30 | 619809.0 | 852429.0 | 756619.200 | 55464.3602 |
| D1 | 41 | 15.2926\% | 24.5937\% | 18.780360\% | 2.7847489\% | D1 | 30 | 15.2926\% | 22.3053\% | 17.463855\% | 1.8902155\% |
| D_E_area_Non_MFIs | 41 | 823250.0 | 1719843.0 | 1342682.488 | 279068.4892 | D_E_area_Non_MFls | 30 | 1136806.0 | 1719843.0 | 1481828.033 | 163498.7423 |
| D2 | 41 | 28.2890\% | 36.3071\% | 32.896318\% | 2.3415482\% | D2 | 30 | 29.7465\% | 36.3071\% | 33.943088\% | 1.7504579\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 56391.0 | 129264.0 | 89909.073 | 20329.0096 | D_EU_memb_Non_EMU_MFIs | 30 | 56391.0 | 116435.0 | 83419.733 | 18608.3251 |
| D3 | 41 | 1.1704\% | 3.7864\% | 2.334595\% | .8188620\% | D3 | 30 | 1.1704\% | 3.0492\% | 1.952930\% | .5703352\% |
| D_EU_memb_Non_EMU_Non_MFls | 41 | 4724.0 | 19185.0 | 10765.854 | 3395.3147 | D_EU_memb_Non_EMU_Non_MFIs | 30 | 8608.0 | 19185.0 | 12095.233 | 2935.6240 |
| D4 | 41 | .1243\% | .4099\% | .264127\% | .0615835\% | D4 | 30 | .1882\% | .4099\% | .277825\% | .0613480\% |
| D_Domestic_MFIs | 41 | 374849.0 | 659786.0 | 537067.561 | 75438.6684 | D_Domestic_MFIs | 30 | 400662.0 | 659786.0 | 563174.433 | 63815.6338 |
| D5 | 41 | 9.9903\% | 15.7186\% | 13.384485\% | 1.4580276\% | D5 | 30 | 9.9903\% | 15.7186\% | 12.953077\% | 1.4399583\% |
| D_Domestic_Non_MFls | 41 | 807081.0 | 1696148.0 | 1320503.073 | 278028.5940 | D_Domestic_Non_MFls | 30 | 1112511.0 | 1696148.0 | 1458776.667 | 164687.6526 |
| D6 | 41 | 27.7276\% | 35.7051\% | 32.340114\% | 2.3960456\% | D6 | 30 | 29.1108\% | 35.7051\% | 33.409225\% | 1.8007041\% |
| Total deposits (MFIs) | 41 | 1016169 | 1597585 | 1372646.32 | 135220.372 | Total deposits (MFIs) | 30 | 1123766 | 1597585 | 1403213.37 | 116720.801 |
| Total deposits (non-MFIs) | 41 | 1637835 | 3433015 | 2673951.41 | 559430.513 | Total deposits (non-MFIs) | 30 | 2259152 | 3433015 | 2952699.93 | 329363.327 |
| TOTAL DEPOSITS | 41 | 2654004.0 | 4818266.0 | 4046597.732 | 618138.1293 | TOTAL DEPOSITS | 30 | 3786637.0 | 4818266.0 | 4355913.300 | 321065.0263 |
| LTD gap | 41 | 898311 | 1918588 | 1489534.80 | 307061.584 | LTD gap | 30 | 898311 | 1918588 | 1404313.47 | 305522.639 |
| LTD | 41 | 1.2616682 | 2.0464458 | 1.6041525 | 0.2356919 | LTD | 30 | 1.2616682 | 1.8492514 | 1.4934670 | 0.1666128 |
| GLTDFq | 40 | -48.2396694 | 6.1257461 | -1.0904980 | 7.9509008 | GLTDFq | 30 | -48.2396694 | 2.8621569 | -1.8043660 | 8.9799423 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| IT 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | . 207 | -. 268 | -,986" | ,995" | -,876" | ,872" | -,779" | . 133 | -,728" | ,872" | -,848" | -. 127 | -,691" | -,708" | -,702" |
|  | Sig. (2-tailed) |  | . 193 | . 090 | . 000 | . 000 | . 000 | . 000 | . 000 | . 407 | . 000 | . 000 | . 000 | . 434 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | . 207 | 1 | ,609" | -,362* | . 232 | . 059 | -. 078 | . 024 | -. 236 | . 119 | -. 067 | -. 001 | . 101 | . 184 | . 170 | . 078 |
|  | Sig. (2-tailed) | . 193 |  | . 000 | . 020 | . 144 | . 714 | . 628 | . 883 | . 137 | . 458 | . 678 | . 996 | . 536 | . 250 | . 287 | . 628 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | -. 268 | ,609" | 1 | . 136 | -. 229 | . 295 | -. 275 | . 231 | . 057 | . 177 | -. 262 | . 225 | -. 090 | ,406" | ,341* | . 306 |
|  | Sig. (2-tailed) | . 090 | . 000 |  | . 398 | . 150 | . 061 | . 082 | . 147 | . 724 | . 268 | . 097 | . 157 | . 579 | . 009 | . 029 | . 052 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -,986" | -,362* | . 136 | 1 | -,990" | ,838* | -,831" | ,757" | -. 110 | ,683* | -,833* | ,824* | . 116 | ,637" | ,660" | ,665** |
|  | Sig. (2-tailed) | . 000 | . 020 | . 398 |  | . 000 | . 000 | . 000 | . 000 | 493 | . 000 | . 000 | . 000 | . 476 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,995" | . 232 | -. 229 | -,990" | 1 | -,889" | ,883* | -,806" | . 159 | -,728" | ,885" | -,868* | -. 138 | -,697" | -,722" | -,711* |
|  | Sig. (2-tailed) | . 000 | . 144 | . 150 | . 000 |  | . 000 | . 000 | . 000 | . 320 | . 000 | . 000 | . 000 | . 396 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | -,876" | . 059 | . 295 | ,838** | -,889" | 1 | -,993" | ,898" | -,385* | ,828* | -,993* | ,963* | . 239 | ,845" | ,883** | ,857" |
|  | Sig. (2-tailed) | . 000 | . 714 | . 061 | . 000 | . 000 |  | . 000 | . 000 | . 013 | . 000 | . 000 | . 000 | . 138 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | ,872" | -. 078 | -. 275 | -,831" | ,883" | -,993" | 1 | -,861" | ,398" | -,886" | ,999" | -,939" | -. 245 | -,794" | -,838" | -,804" |
|  | Sig. (2-tailed) | . 000 | . 628 | . 082 | . 000 | . 000 | . 000 |  | . 000 | . 010 | . 000 | . 000 | . 000 | . 127 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -,779" | . 024 | . 231 | ,757* | -,806" | ,898* | -,861" | 1 | -,321* | ,548" | -,868* | ,968* | . 248 | ,863" | ,930" | ,870" |
|  | Sig. (2-tailed) | . 000 | . 883 | . 147 | . 000 | . 000 | . 000 | . 000 |  | . 040 | . 000 | . 000 | . 000 | . 123 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | . 133 | -. 236 | . 057 | -. 110 | . 159 | -,385* | ,398" | -,321* | 1 | -,425" | ,401" | -,323* | -,356* | -,401" | -,402" | -,399" |
|  | Sig. (2-tailed) | . 407 | . 137 | . 724 | . 493 | . 320 | . 013 | . 010 | . 040 |  | . 006 | . 009 | . 039 | . 024 | . 009 | . 009 | . 010 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -,728" | . 119 | . 177 | ,683" | -,728" | ,828" | -,886" | ,548" | -,425" | 1 | -,881" | ,690" | . 211 | ,497" | ,537" | ,506" |
|  | Sig. (2-tailed) | . 000 | . 458 | . 268 | . 000 | . 000 | . 000 | . 000 | . 000 | . 006 |  | . 000 | . 000 | . 192 | . 001 | . 000 | . 001 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | ,872" | -. 067 | -. 262 | -,833" | ,885" | -,993" | ,999" | -,868" | ,401" | -,881" | 1 | -,944" | -. 242 | -,793" | -,842" | -,806" |
|  | Sig. (2-tailed) | . 000 | . 678 | . 097 | . 000 | . 000 | . 000 | . 000 | . 000 | . 009 | . 000 |  | . 000 | . 133 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | -,848" | -. 001 | . 225 | ,824" | -,868" | ,963" | -,939" | ,968* | -,323* | ,690" | -,944" | 1 | . 266 | ,852" | ,912" | ,874" |
|  | Sig. (2-tailed) | . 000 | . 996 | . 157 | . 000 | . 000 | . 000 | . 000 | . 000 | . 039 | . 000 | . 000 |  | . 098 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | -. 127 | . 101 | -. 090 | . 116 | -. 138 | . 239 | -. 245 | . 248 | -,356* | . 211 | -. 242 | . 266 | 1 | . 203 | . 223 | . 213 |
|  | Sig. (2-tailed) | . 434 | . 536 | . 579 | . 476 | . 396 | . 138 | . 127 | . 123 | . 024 | . 192 | . 133 | . 098 |  | . 209 | . 167 | . 187 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | -,691" | . 184 | ,406" | ,637* | -,697* | ,845* | -,794" | ,863* | -401" | ,497* | -,793* | ,852" | . 203 | 1 | ,975" | ,983* |
|  | Sig. (2-tailed) | . 000 | . 250 | . 009 | . 000 | . 000 | . 000 | . 000 | . 000 | . 009 | . 001 | . 000 | . 000 | . 209 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | -,708" | . 170 | ,341* | ,660" | -,722" | ,883* | -,838" | ,930" | -,402* | ,537" | -,842" | ,912" | . 223 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 000 | . 287 | . 029 | . 000 | . 000 | . 000 | . 000 | . 000 | . 009 | . 000 | . 000 | . 000 | . 167 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | -,702" | . 078 | . 306 | ,665* | -,711" | ,857" | -,804" | ,870" | -399" | ,506" | -806" | ,874** | . 213 | ,983" | ,966" | 1 |
|  | Sig. (2-tailed) | . 000 | . 628 | . 052 | . 000 | . 000 | . 000 | . 000 | . 000 | . 010 | . 001 | . 000 | . 000 | . 187 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| IT 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | ,759" | ,386* | -,993** | ,994** | -,762" | ,743* | -,556" | -. 210 | -,602" | ,742" | -,687" | -. 271 | -. 342 | -. 331 |
|  | Sig. (2-tailed) |  | . 000 | . 035 | . 000 | . 000 | . 000 | . 000 | . 001 | . 265 | . 000 | . 000 | . 000 | . 148 | . 064 | . 074 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | ,759" | 1 | ,437* | -,819" | ,763" | -,422* | . 334 | -,531" | -,407* | -. 057 | . 346 | -,549" | -. 310 | -. 274 | -,404* |
|  | Sig. (2-tailed) | . 000 |  | . 016 | . 000 | . 000 | . 020 | . 071 | . 003 | . 026 | . 764 | . 061 | . 002 | . 096 | . 143 | . 027 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | ,386* | ,437* | 1 | --443* | ,445* | -,605" | ,547" | -,773" | . 345 | -. 285 | ,565" | -,776" | -,740" | -,745" | -,664" |
|  | Sig. (2-tailed) | . 035 | . 016 |  | . 014 | . 014 | . 000 | . 002 | . 000 | . 062 | . 127 | . 001 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,993** | -,819" | -,443* | 1 | -,995" | ,753" | -,722" | ,610" | . 223 | ,543* | -,725" | ,719" | . 319 | ,383 ${ }^{\circ}$ | ,379* |
|  | Sig. (2-tailed) | . 000 | . 000 | . 014 |  | . 000 | . 000 | . 000 | . 000 | . 237 | . 002 | . 000 | . 000 | . 085 | . 037 | . 039 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,994" | ,763* | ,445* | -,995* | 1 | -,789" | ,766" | -,630" | -. 177 | -,600" | ,769"* | -,740" | -. 329 | -,412* | -,376* |
|  | Sig. (2-tailed) | . 000 | . 000 | . 014 | . 000 |  | . 000 | . 000 | . 000 | . 351 | . 000 | . 000 | . 000 | . 076 | . 024 | . 040 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -,762" | -,422* | -,605" | ,753* | -,789" | 1 | -,989" | ,747* | -. 169 | ,842" | -,992" | ,910" | ,618" | ,709" | ,651" |
|  | Sig. (2-tailed) | . 000 | . 020 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 371 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | ,743" | . 334 | ,547" | -,722" | ,766" | -,989" | 1 | -,677" | . 217 | -,907" | ,999" | -,854" | -,533" | -,643" | -,553" |
|  | Sig. (2-tailed) | . 000 | . 071 | . 002 | . 000 | . 000 | . 000 |  | . 000 | . 250 | . 000 | . 000 | . 000 | . 002 | . 000 | . 002 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -,556" | -,531" | -,773" | ,610" | -,630" | ,747" | -,677" | 1 | -. 132 | . 328 | -,700" | ,935* | ,808" | ,882" | ,789"* |
|  | Sig. (2-tailed) | . 001 | . 003 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 488 | . 077 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | -. 210 | -,407* | . 345 | . 223 | -. 177 | -. 169 | . 217 | -. 132 | 1 | -. 306 | . 220 | -. 095 | -. 206 | -. 263 | -. 039 |
|  | Sig. (2-tailed) | . 265 | . 026 | . 062 | . 237 | . 351 | . 371 | . 250 | . 488 |  | . 100 | . 244 | . 619 | . 274 | . 160 | . 836 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -,602" | -. 057 | -. 285 | ,543" | -,600" | ,842" | -,907" | . 328 | -. 306 | 1 | -,895" | ,563" | . 216 | . 345 | . 219 |
|  | Sig. (2-tailed) | . 000 | . 764 | . 127 | . 002 | . 000 | . 000 | . 000 | . 077 | . 100 |  | . 000 | . 001 | . 252 | . 062 | . 244 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | ,742" | . 346 | ,565" | -,725* | ,769" | -,992" | ,999" | -,700" | . 220 | -,895" | 1 | -,868" | -,552" | -,666" | -,569" |
|  | Sig. (2-tailed) | . 000 | . 061 | . 001 | . 000 | . 000 | . 000 | . 000 | . 000 | . 244 | . 000 |  | . 000 | . 002 | . 000 | . 001 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | -,687** | -,549" | -,776" | ,719** | -,740" | ,910" | -,854" | ,935" | -. 095 | ,563* | -,868" | 1 | ,804" | ,861" | ,818" |
|  | Sig. (2-tailed) | . 000 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 619 | . 001 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -. 271 | -. 310 | -,740" | . 319 | -. 329 | ,618* | -,533" | ,808" | -. 206 | . 216 | -,552" | ,804* | 1 | ,931" | ,919** |
|  | Sig. (2-tailed) | . 148 | . 096 | . 000 | . 085 | . 076 | . 000 | . 002 | . 000 | . 274 | . 252 | . 002 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -. 342 | -. 274 | -,745* | ,383* | -,412* | ,709" | -,643" | ,882" | -. 263 | . 345 | -,666" | ,861" | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 064 | . 143 | . 000 | . 037 | . 024 | . 000 | . 000 | . 000 | . 160 | . 062 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -. 331 | -,404* | -,664" | ,379* | -,376* | ,651" | -,553" | ,789" | -. 039 | . 219 | -,569" | ,818" | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 074 | . 027 | . 000 | . 039 | . 040 | . 000 | . 002 | . 000 | . 836 | . 244 | . 001 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| LT 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | LT 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 10618.0 | 20693.0 | 17115.732 | 2205.0012 | L_E_area_Non_MFIs | 30 | 16532.0 | 20064.0 | 17624.767 | 949.1046 |
| L1 | 41 | 43.8703\% | 48.0177\% | 46.768963\% | .8978203\% | L1 | 30 | 43.8703\% | 47.8984\% | 46.463322\% | .8497022\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 80.0 | 2525.0 | 1143.195 | 592.6832 | L_EU_memb_Non_EMU_MFIs | 30 | 80.0 | 2525.0 | 1383.233 | 501.3925 |
| L2 | 41 | .2157\% | 6.7752\% | 3.077476\% | 1.5487687\% | L2 | 30 | .2157\% | 6.7752\% | 3.667287\% | 1.3880307\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 15.0 | 168.0 | 64.341 | 40.9632 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 15.0 | 168.0 | 58.700 | 45.8672 |
| L3 | 41 | .0396\% | .4375\% | .177476\% | .1107258\% | L3 | 30 | .0396\% | .4375\% | .152122\% | .1169679\% |
| L_Domestic_MFIs | 41 | 333.0 | 4397.0 | 1242.488 | 680.0677 | L_Domestic_MFls | 30 | 333.0 | 4397.0 | 1322.167 | 778.1577 |
| L4 | 41 | . $9367 \%$ | 11.6224\% | 3.419161\% | 1.7970863\% | L4 | 30 | .9367\% | 11.6224\% | 3.503698\% | 2.0862048\% |
| L_Domestic_Non_MFIs | 41 | 10605.0 | 20598.0 | 17035.073 | 2174.6911 | L_Domestic_Non_MFls | 30 | 16476.0 | 19948.0 | 17529.233 | 921.7563 |
| L5 | 41 | 43.7222\% | 47.9480\% | 46.556924\% | .8946423\% | L5 | 30 | 43.7222\% | 47.6130\% | 46.213572\% | .7915063\% |
| Total loans (MFIs) | 41 | 1163.0 | 4679.0 | 2385.683 | 757.6018 | Total loans (MFIs) | 30 | 1741.0 | 4679.0 | 2705.400 | 607.3881 |
| Total loans (non-MFIs) | 41 | 21279.0 | 41375.0 | 34215.146 | 4389.9613 | Total loans (non-MFIs) | 30 | 33024.0 | 40113.0 | 35212.700 | 1902.6740 |
| TOTAL LOANS | 41 | 22460.0 | 43137.0 | 36600.829 | 4632.9630 | TOTAL LOANS | 30 | 35549.0 | 42056.0 | 37918.100 | 1571.2902 |
| D_E_area_MFls | 41 | 938.0 | 3609.0 | 2406.220 | 675.9625 | D_E_area_MFIs | 30 | 938.0 | 3383.0 | 2306.333 | 694.4680 |
| D1 | 41 | 2.5168\% | 11.0283\% | 7.917111\% | 2.4386004\% | D1 | 30 | 2.5168\% | 10.7523\% | 7.179013\% | 2.4245024\% |
| D_E_area_Non_MFIs | 41 | 7619.0 | 17332.0 | 12535.341 | 2492.1737 | D_E_area_Non_MFls | 30 | 10544.0 | 17332.0 | 13559.167 | 1988.0853 |
| D2 | 41 | 33.2010\% | 46.1780\% | 39.968522\% | 3.8698877\% | D2 | 30 | 33.5124\% | 46.1780\% | 41.250198\% | 3.6433417\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 1033.0 | 7049.0 | 3483.415 | 1700.8346 | D_EU_memb_Non_EMU_MFIs | 30 | 1033.0 | 6817.0 | 3135.733 | 1583.6497 |
| D3 | 41 | 2.9353\% | 22.0391\% | 11.431604\% | 5.5459669\% | D3 | 30 | 2.9353\% | 21.6667\% | 9.791328\% | 5.2137204\% |
| D_EU_memb_Non_EMU_Non_MFls | 41 | 74.0 | 310.0 | 121.707 | 56.0264 | D_EU_memb_Non_EMU_Non_MFls | 30 | 74.0 | 232.0 | 99.500 | 32.3864 |
| D4 | 41 | .1994\% | 1.2817\% | .417619\% | .2630490\% | D4 | 30 | .1994\% | .7427\% | .306226\% | .1073013\% |
| D_Domestic_MFls | 41 | 26.0 | 554.0 | 207.659 | 154.6659 | D_Domestic_MFls | 30 | 26.0 | 554.0 | 206.600 | 180.6134 |
| D5 | 41 | .0825\% | 1.5330\% | .660377\% | .4339005\% | D5 | 30 | .0825\% | 1.5330\% | .608261\% | .4883133\% |
| D_Domestic_Non_MFls | 41 | 7563.0 | 17188.0 | 12420.049 | 2468.6703 | D_Domestic_Non_MFls | 30 | 10462.0 | 17188.0 | 13432.567 | 1976.5114 |
| D6 | 41 | 32.9040\% | 45.7944\% | 39.604766\% | 3.8573180\% | D6 | 30 | 33.2518\% | 45.7944\% | 40.864974\% | 3.6462064\% |
| Total deposits (MFIs) | 41 | 2916 | 10737 | 6097.29 | 2266.649 | Total deposits (MFIs) | 30 | 2916 | 10329 | 5648.67 | 2140.220 |
| Total deposits (non-MFIs) | 41 | 15385 | 34617 | 25077.10 | 4925.286 | Total deposits (non-MFIs) | 30 | 21134 | 34617 | 27091.23 | 3955.468 |
| TOTAL DEPOSITS | 41 | 19846.0 | 38110.0 | 31174.390 | 4005.0649 | TOTAL DEPOSITS | 30 | 30416.0 | 38110.0 | 32739.900 | 2266.3922 |
| LTD gap | 41 | 2468 | 21890 | 11523.73 | 5150.186 | LTD gap | 30 | 2468 | 20922 | 10826.87 | 4991.248 |
| LTD | 41 | 1.0712945 | 2.0302631 | 1.4953394 | 0.2564741 | LTD | 30 | 1.0712945 | 1.9899688 | 1.4329195 | 0.2497202 |
| GLTDFq | 40 | -26.5454545 | 30.3076923 | 0.4276004 | 7.1216464 | GLTDFq | 30 | -6.3033708 | 30.3076923 | 0.4319856 | 6.1101690 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| LT 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR 3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,436" | ,681" | -,659" | ,992" | ,622" | -,762" | ,754" | ,418" | . 207 | -,764" | ,698" | -. 026 | ,633" | ,673" | ,656" |
|  | Sig. (2-tailed) |  | . 004 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 007 | . 193 | . 000 | . 000 | . 872 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | -,436" | 1 | -,393* | -,387* | -,467* | -. 232 | ,367* | -,363* | -,484" | -. 289 | ,366* | -. 248 | -. 066 | -,588" | -,536" | -,584" |
|  | Sig. (2-tailed) | . 004 |  | . 011 | . 012 | . 002 | . 144 | . 018 | . 020 | . 001 | . 067 | . 018 | . 118 | . 684 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | ,681" | -,393* | 1 | -,380* | ,636" | ,661" | -,675" | ,623" | ,497" | . 124 | -,684" | ,595* | -. 109 | ,503" | ,603" | ,541" |
|  | Sig. (2-tailed) | . 000 | . 011 |  | . 014 | . 000 | . 000 | . 000 | . 000 | . 001 | . 438 | . 000 | . 000 | . 504 | . 001 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -,659** | -,387* | -,380* | 1 | -,630" | -,460" | ,483" | -,471" | -. 062 | . 034 | ,484** | -,509" | . 084 | -. 184 | -. 269 | -. 208 |
|  | Sig. (2-tailed) | . 000 | . 012 | . 014 |  | . 000 | . 003 | . 001 | . 002 | . 698 | . 832 | . 001 | . 001 | . 607 | . 249 | . 089 | . 192 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,992" | -,467" | ,636** | -,630" | 1 | ,620" | -,757* | ,742" | ,482" | . 207 | -,756" | ,677* | -. 015 | ,691" | ,719" | ,704* |
|  | Sig. (2-tailed) | . 000 | . 002 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 001 | . 194 | . 000 | . 000 | . 926 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | ,622" | -. 232 | ,661* | -,460" | ,620" | 1 | -,927** | ,855" | ,453" | -,346* | -,923** | ,886** | -. 197 | ,615" | ,726" | ,671" |
|  | Sig. (2-tailed) | . 000 | . 144 | . 000 | . 003 | . 000 |  | . 000 | . 000 | . 003 | . 027 | . 000 | . 000 | . 223 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | -,762" | ,367* | -,675" | ,483* | -,757* | -,927" | 1 | -,983" | -,401" | . 217 | 1,000" | -,972" | . 215 | -,666" | -,747" | -,736" |
|  | Sig. (2-tailed) | . 000 | . 018 | . 000 | . 001 | . 000 | . 000 |  | . 000 | . 009 | . 174 | . 000 | . 000 | . 183 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | ,754" | -,363* | ,623** | -,471" | ,742" | ,855" | -,983" | 1 | . 289 | -. 233 | -,985" | ,980" | -. 239 | ,613" | ,682" | ,692" |
|  | Sig. (2-tailed) | . 000 | . 020 | . 000 | . 002 | . 000 | . 000 | . 000 |  | . 067 | . 143 | . 000 | . 000 | . 137 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | ,418* | -,484" | ,497* | -. 062 | ,482" | ,453" | -,401" | . 289 | 1 | . 200 | -,390* | . 206 | . 029 | ,652" | ,679" | ,605" |
|  | Sig. (2-tailed) | . 007 | . 001 | . 001 | . 698 | . 001 | . 003 | . 009 | . 067 |  | . 211 | . 012 | . 196 | . 859 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | . 207 | -. 289 | . 124 | . 034 | . 207 | -,346* | . 217 | -. 233 | . 200 | 1 | . 210 | -,315* | . 253 | . 117 | . 052 | . 082 |
|  | Sig. (2-tailed) | . 193 | . 067 | . 438 | . 832 | . 194 | . 027 | . 174 | . 143 | . 211 |  | . 187 | . 045 | . 115 | . 467 | . 746 | . 612 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | -,764* | , $366{ }^{*}$ | -,684" | ,484* | -,756" | -,923" | 1,000" | -,985" | -,390* | . 210 | 1 | -,973" | . 223 | -,660" | -,743" | -,731" |
|  | Sig. (2-tailed) | . 000 | . 018 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 | . 012 | . 187 |  | . 000 | . 166 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | ,698" | -. 248 | ,595* | -,509* | ,677* | ,886" | -,972" | ,980" | . 206 | -,315* | -,973" | 1 | -. 226 | ,540" | ,627" | ,632" |
|  | Sig. (2-tailed) | . 000 | . 118 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 | . 196 | . 045 | . 000 |  | . 161 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | -. 026 | -. 066 | -. 109 | . 084 | -. 015 | -. 197 | . 215 | -. 239 | . 029 | . 253 | . 223 | -. 226 | 1 | -. 106 | -. 136 | -. 102 |
|  | Sig. (2-tailed) | . 872 | . 684 | . 504 | . 607 | . 926 | . 223 | . 183 | . 137 | . 859 | . 115 | . 166 | . 161 |  | . 515 | . 403 | . 531 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | ,633" | -,588* | ,503* | -. 184 | ,691* | ,615* | -,666" | ,613* | ,652" | . 117 | -,660" | ,540" | -. 106 | 1 | ,975" | ,983** |
|  | Sig. (2-tailed) | . 000 | . 000 | . 001 | . 249 | . 000 | . 000 | . 000 | . 000 | . 000 | . 467 | . 000 | . 000 | . 515 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | ,673" | -,536" | ,603* | -. 269 | ,719" | ,726" | -,747* | ,682" | ,679" | . 052 | -,743" | ,627" | -. 136 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 089 | . 000 | . 000 | . 000 | . 000 | . 000 | . 746 | . 000 | . 000 | . 403 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | ,656" | -,584* | ,541* | -. 208 | ,704* | ,671" | -,736* | ,692" | ,605* | . 082 | -,731** | ,632" | -. 102 | ,983" | ,966" | 1 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 192 | . 000 | . 000 | . 000 | . 000 | . 000 | . 612 | . 000 | . 000 | . 531 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| LT 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -. 109 | ,653** | -,749** | ,994** | ,491" | -,652" | ,668" | . 278 | . 144 | -,658" | ,627" | ,483** | ,520" | ,433* |
|  | Sig. (2-tailed) |  | . 568 | . 000 | . 000 | . 000 | . 006 | . 000 | . 000 | . 137 | . 448 | . 000 | . 000 | . 007 | . 003 | . 017 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -. 109 | 1 | -. 201 | -,577* | -. 087 | . 127 | . 031 | -. 086 | -. 046 | -. 210 | . 038 | . 007 | . 164 | . 157 | . 053 |
|  | Sig. (2-tailed) | . 568 |  | . 286 | . 001 | . 649 | . 505 | . 872 | . 650 | . 808 | . 265 | . 842 | . 973 | . 386 | . 408 | . 782 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | ,653** | -. 201 | 1 | -,409* | ,582" | ,626" | -,674" | ,651" | ,407* | . 025 | -,690" | ,653" | ,744" | ,737* | ,729" |
|  | Sig. (2-tailed) | . 000 | . 286 |  | . 025 | . 001 | . 000 | . 000 | . 000 | . 025 | . 897 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,749" | -,577** | -,409* | 1 | -,759" | -,498" | ,524* | -,499" | -. 207 | . 032 | ,523* | -,529" | -,517" | -,541" | -,402* |
|  | Sig. (2-tailed) | . 000 | . 001 | . 025 |  | . 000 | . 005 | . 003 | . 005 | . 271 | . 866 | . 003 | . 003 | . 003 | . 002 | . 028 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,994* | -. 087 | ,582" | -,759** | 1 | ,470" | -,634" | ,653* | . 269 | . 126 | -,637" | ,612" | ,445* | ,484" | ,395* |
|  | Sig. (2-tailed) | . 000 | . 649 | . 001 | . 000 |  | . 009 | . 000 | . 000 | . 150 | . 508 | . 000 | . 000 | . 014 | . 007 | . 031 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | ,491" | . 127 | ,626" | -,498* | ,470" | 1 | -,934" | ,882" | ,369* | ,540" | -,931" | ,944" | ,834" | ,896" | ,792" |
|  | Sig. (2-tailed) | . 006 | . 505 | . 000 | . 005 | . 009 |  | . 000 | . 000 | . 045 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | -,652" | . 031 | -,674" | ,524" | -,634" | -,934" | 1 | -,990" | -,441* | ,384* | ,999" | -,995" | -,766" | -,836" | -,778" |
|  | Sig. (2-tailed) | . 000 | . 872 | . 000 | . 003 | . 000 | . 000 |  | . 000 | . 015 | . 036 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | ,668** | -. 086 | ,651" | -,499" | ,653" | ,882" | -,990" | 1 | ,440* | -,368* | -,990" | ,982" | ,711" | ,781" | ,742" |
|  | Sig. (2-tailed) | . 000 | . 650 | . 000 | . 005 | . 000 | . 000 | . 000 |  | . 015 | . 046 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | . 278 | -. 046 | ,407 | -. 207 | . 269 | ,369 | -,441* | ,440 | 1 | -. 150 | -,443* | ,450 | . 295 | ,381 | . 309 |
|  | Sig. (2-tailed) | . 137 | . 808 | . 025 | . 271 | . 150 | . 045 | . 015 | . 015 |  | . 427 | . 014 | . 013 | . 114 | . 038 | . 097 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | . 144 | -. 210 | . 025 | . 032 | . 126 | -,540" | ,384* | -,368 | -. 150 | 1 | ,371* | -,426 ${ }^{\circ}$ | -. 344 | -,370 | -. 290 |
|  | Sig. (2-tailed) | . 448 | . 265 | . 897 | . 866 | . 508 | . 002 | . 036 | . 046 | . 427 |  | . 043 | . 019 | . 063 | . 044 | . 120 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | -,658" | . 038 | -,690" | ,523" | -,637* | -,931" | ,999" | -,990" | -,443* | ,371* | 1 | -,994" | -,768" | -,839" | -,780" |
|  | Sig. (2-tailed) | . 000 | . 842 | . 000 | . 003 | . 000 | . 000 | . 000 | . 000 | . 014 | . 043 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | ,627** | . 007 | ,653" | -,529** | ,612" | ,944" | -,995* | ,982" | ,450* | -,426* | -,994* | 1 | ,779"* | ,857" | ,796" |
|  | Sig. (2-tailed) | . 000 | . 973 | . 000 | . 003 | . 000 | . 000 | . 000 | . 000 | . 013 | . 019 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | ,483** | . 164 | ,744* | -,517** | ,445* | ,834" | -,766" | ,711" | . 295 | -. 344 | -,768* | ,779" | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 007 | . 386 | . 000 | . 003 | . 014 | . 000 | . 000 | . 000 | . 114 | . 063 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | ,520" | . 157 | ,737* | -,541* | ,484" | ,896" | -,836" | ,781" | ,381* | -,370* | -,839" | ,857" | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 003 | . 408 | . 000 | . 002 | . 007 | . 000 | . 000 | . 000 | . 038 | . 044 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | ,433* | . 053 | ,729* | -,402* | ,395* | ,792" | -,778" | ,742" | . 309 | -. 290 | -,780" | ,796" | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 017 | . 782 | . 000 | . 028 | . 031 | . 000 | . 000 | . 000 | . 097 | . 120 | . 000 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| LU 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | LU 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 103733.0 | 155127.0 | 136113.829 | 12897.7346 | L_E_area_Non_MFIs | 30 | 125557.0 | 154391.0 | 139881.400 | 7419.2500 |
| L1 | 41 | 33.8963\% | 43.9695\% | 38.578906\% | 2.5740689\% | L1 | 30 | 33.9507\% | 43.9695\% | 39.617993\% | 2.1272551\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 41731.0 | 86862.0 | 52941.902 | 8007.2774 | L_EU_memb_Non_EMU_MFIs | 30 | 41731.0 | 86862.0 | 52205.467 | 8928.7883 |
| L2 | 41 | 11.2213\% | 20.0408\% | 15.038183\% | 2.1298958\% | L2 | 30 | 11.2213\% | 20.0408\% | 14.745833\% | 2.1124132\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 13283.0 | 20532.0 | 16555.268 | 1921.7781 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 13901.0 | 20045.0 | 16153.067 | 1548.9979 |
| L3 | 41 | 3.6231\% | 5.8217\% | 4.705788\% | .5494623\% | L3 | 30 | 3.6231\% | 5.4930\% | 4.581611\% | .4937716\% |
| L_Domestic_MFIs | 41 | 50032.0 | 145689.0 | 84790.366 | 23710.0659 | L_Domestic_MFIs | 30 | 50032.0 | 122837.0 | 78292.333 | 21601.1497 |
| L4 | 41 | 15.4892\% | 33.5111\% | 23.702620\% | 4.8904110\% | L4 | 30 | 15.4892\% | 28.6534\% | 21.786447\% | 4.2068230\% |
| L_Domestic_Non_MFIs | 41 | 36673.0 | 77206.0 | 63489.756 | 10372.4668 | L_Domestic_Non_MFIs | 30 | 60393.0 | 77206.0 | 67835.167 | 3516.4751 |
| L5 | 41 | 12.2225\% | 21.4150\% | 17.974504\% | 2.7572811\% | L5 | 30 | 13.9339\% | 21.4150\% | 19.268115\% | 1.7238189\% |
| Total loans (MFIs) | 41 | 100868.0 | 209699.0 | 137732.268 | 27727.4735 | Total loans (MFIs) | 30 | 100868.0 | 209699.0 | 130497.800 | 25904.4797 |
| Total loans (non-MFIs) | 41 | 155349.0 | 249166.0 | 216158.854 | 22942.1610 | Total loans (non-MFIs) | 30 | 204586.0 | 246485.0 | 223869.633 | 10146.9693 |
| TOTAL LOANS | 41 | 280347.0 | 434749.0 | 353891.122 | 38050.8516 | TOTAL LOANS | 30 | 310777.0 | 433425.0 | 354367.433 | 31008.2440 |
| D_E_area_MFIs | 41 | 186693.0 | 349130.0 | 247620.829 | 45956.0873 | D_E_area_MFls | 30 | 186693.0 | 307167.0 | 228470.600 | 33720.3839 |
| D1 | 41 | 24.8876\% | 38.8582\% | 33.002348\% | 3.9731909\% | D1 | 30 | 24.8876\% | 38.0793\% | 32.049131\% | 4.1902035\% |
| D_E_area_Non_MFIs | 41 | 199758.0 | 279396.0 | 229799.537 | 23593.8394 | D_E_area_Non_MFls | 30 | 203803.0 | 279396.0 | 233402.433 | 25537.4859 |
| D2 | 41 | 23.3825\% | 37.2168\% | 31.030919\% | 4.2348827\% | D2 | 30 | 25.5730\% | 37.2168\% | 32.797665\% | 3.5067663\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 10949.0 | 43052.0 | 22885.024 | 7890.9906 | D_EU_memb_Non_EMU_MFIs | 30 | 10949.0 | 43052.0 | 21553.167 | 7830.0561 |
| D3 | 41 | 1.4630\% | 6.0679\% | 3.082380\% | 1.0897752\% | D3 | 30 | 1.4630\% | 6.0679\% | 3.045508\% | 1.1462673\% |
| D_EU_memb_Non_EMU_Non_MFls | 41 | 4844.0 | 24180.0 | 8777.415 | 4116.9585 | D_EU_memb_Non_EMU_Non_MFls | 30 | 4844.0 | 10477.0 | 7236.267 | 1755.6205 |
| D4 | 41 | .6710\% | 3.1742\% | 1.170180\% | .5157775\% | D4 | 30 | .6911\% | 1.3967\% | 1.016178\% | .2398763\% |
| D_Domestic_MFls | 41 | 35316.0 | 154690.0 | 77782.341 | 42787.7787 | D_Domestic_MFls | 30 | 35316.0 | 134350.0 | 56717.133 | 27219.8792 |
| D5 | 41 | 4.7592\% | 17.1202\% | 10.068365\% | 4.6631479\% | D5 | 30 | 4.7592\% | 16.6161\% | 7.869963\% | 3.3346852\% |
| D_Domestic_Non_MFls | 41 | 128430.0 | 217000.0 | 160133.415 | 26239.5813 | D_Domestic_Non_MFls | 30 | 131530.0 | 217000.0 | 165387.200 | 28193.2205 |
| D6 | 41 | 15.9603\% | 28.9278\% | 21.645808\% | 4.1406108\% | D6 | 30 | 16.6773\% | 28.9278\% | 23.221555\% | 3.7354339\% |
| Total deposits (MFIs) | 41 | 241818 | 538960 | 348288.20 | 89581.778 | Total deposits (MFIs) | 30 | 241818 | 460526 | 306740.90 | 60779.054 |
| Total deposits (non-MFIs) | 41 | 341802 | 504351 | 398710.37 | 49676.301 | Total deposits (non-MFIs) | 30 | 341802 | 504351 | 406025.90 | 55039.412 |
| TOTAL DEPOSITS | 41 | 650363.0 | 933051.0 | 746998.561 | 72734.1567 | TOTAL DEPOSITS | 30 | 650363.0 | 808555.0 | 712766.800 | 39004.4673 |
| LTD gap | 41 | -163348 | 85396 | -44819.24 | 63896.161 | LTD gap | 30 | -163348 | 85396 | -51658.47 | 69206.708 |
| LTD | 41 | . 6756574 | 1.2453704 | . 9005954 | . 1485704 | LTD | 30 | . 6756574 | 1.2453704 | . 8902287 | . 1581028 |
| GLTDFq | 40 | -24.6430318 | 6.1473041 | -. 1829606 | 4.2179771 | GLTDFq | 30 | -2.0843465 | 6.1473041 | . 3491376 | 1.3518281 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| LU 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -. 304 | . 057 | -,886" | ,861" | -,449" | ,725* | -. 086 | -. 200 | -,796" | ,634" | -,493" | . 280 | -,676" | -,671" | -,702" |
|  | Sig. (2-tailed) |  | . 053 | . 722 | . 000 | . 000 | . 003 | . 000 | . 593 | . 211 | . 000 | . 000 | . 001 | . 080 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | -. 304 | 1 | . 158 | -. 093 | -,354* | -. 053 | -. 157 | -. 044 | ,476" | . 244 | -. 112 | -. 179 | -. 239 | . 174 | . 140 | . 158 |
|  | Sig. (2-tailed) | . 053 |  | . 324 | . 561 | . 023 | . 743 | . 328 | . 786 | . 002 | . 124 | . 485 | . 264 | . 138 | . 276 | . 384 | . 325 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | . 057 | . 158 | 1 | -. 137 | -. 132 | . 139 | -. 133 | . 227 | ,310* | . 106 | -. 216 | -. 229 | -. 110 | ,459" | ,454" | ,402" |
|  | Sig. (2-tailed) | . 722 | . 324 |  | . 394 | . 410 | . 386 | . 408 | . 154 | . 049 | . 508 | . 176 | . 149 | . 499 | . 003 | . 003 | . 009 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -,886** | -. 093 | -. 137 | 1 | -,848" | ,572" | -,769* | . 141 | . 107 | ,800" | -,714" | ,607* | -. 189 | ,660" | ,697" | ,693" |
|  | Sig. (2-tailed) | . 000 | . 561 | . 394 |  | . 000 | . 000 | . 000 | . 379 | . 504 | . 000 | . 000 | . 000 | . 244 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,861" | -,354* | -. 132 | -,848** | 1 | -,582" | ,835** | -. 181 | -,434" | -,886" | ,804** | -,433* | . 286 | -,765* | -,807" | -,776* |
|  | Sig. (2-tailed) | . 000 | . 023 | . 410 | . 000 |  | . 000 | . 000 | . 256 | . 005 | . 000 | . 000 | . 005 | . 074 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | -,449** | -. 053 | . 139 | ,572" | -,582" | 1 | -,899** | . 217 | -. 201 | ,769" | -,938** | ,863* | -. 007 | ,540" | ,661" | ,621" |
|  | Sig. (2-tailed) | . 003 | . 743 | . 386 | . 000 | . 000 |  | . 000 | . 172 | . 207 | . 000 | . 000 | . 000 | . 965 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | ,725" | -. 157 | -. 133 | -,769" | ,835" | -,899" | 1 | -. 168 | -. 078 | -,960" | ,975" | -,742" | . 123 | -,768* | -,839" | -,828* |
|  | Sig. (2-tailed) | . 000 | . 328 | . 408 | . 000 | . 000 | . 000 |  | . 295 | . 626 | . 000 | . 000 | . 000 | . 450 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -. 086 | -. 044 | . 227 | . 141 | -. 181 | . 217 | -. 168 | 1 | -. 063 | -. 013 | -. 278 | . 200 | . 006 | . 044 | . 129 | . 085 |
|  | Sig. (2-tailed) | . 593 | . 786 | . 154 | . 379 | . 256 | . 172 | . 295 |  | . 696 | . 936 | . 078 | . 211 | . 968 | . 786 | . 421 | . 598 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | -. 200 | ,476" | ,310* | . 107 | -,434" | -. 201 | -. 078 | -. 063 | 1 | . 201 | -. 061 | -,476" | -. 237 | ,355* | ,313* | . 264 |
|  | Sig. (2-tailed) | . 211 | . 002 | . 049 | . 504 | . 005 | . 207 | . 626 | . 696 |  | . 207 | . 704 | . 002 | . 140 | . 023 | . 047 | . 095 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -,796" | . 244 | . 106 | ,800" | -,886" | ,769" | -,960" | -. 013 | . 201 | 1 | -,903" | ,607" | -. 175 | ,833" | ,870" | ,868" |
|  | Sig. (2-tailed) | . 000 | . 124 | . 508 | . 000 | . 000 | . 000 | . 000 | . 936 | . 207 |  | . 000 | . 000 | . 279 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | ,634" | -. 112 | -. 216 | -,714" | ,804" | -,938" | ,975* | -. 278 | -. 061 | -,903" | 1 | -,747* | . 106 | -,726* | -,828* | -,782" |
|  | Sig. (2-tailed) | . 000 | . 485 | . 176 | . 000 | . 000 | . 000 | . 000 | . 078 | . 704 | . 000 |  | . 000 | . 513 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | -,493" | -. 179 | -. 229 | ,607* | -,433* | ,863" | -,742* | . 200 | -,476" | ,607* | -,747* | 1 | . 059 | . 257 | ,375* | ,378* |
|  | Sig. (2-tailed) | . 001 | . 264 | . 149 | . 000 | . 005 | . 000 | . 000 | . 211 | . 002 | . 000 | . 000 |  | . 719 | . 105 | . 016 | . 015 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | . 280 | -. 239 | -. 110 | -. 189 | . 286 | -. 007 | . 123 | . 006 | -. 237 | -. 175 | . 106 | . 059 | 1 | -. 193 | -. 186 | -. 144 |
|  | Sig. (2-tailed) | . 080 | . 138 | . 499 | . 244 | . 074 | . 965 | . 450 | . 968 | . 140 | . 279 | . 513 | . 719 |  | . 233 | . 252 | . 377 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | -,676** | . 174 | ,459** | ,660" | -,765" | ,540" | -,768* | . 044 | ,355* | ,833* | -,726" | . 257 | -. 193 | 1 | ,975* | ,983" |
|  | Sig. (2-tailed) | . 000 | . 276 | . 003 | . 000 | . 000 | . 000 | . 000 | . 786 | . 023 | . 000 | . 000 | . 105 | . 233 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | -,671" | . 140 | ,454" | ,697* | -,807" | ,661" | -,839" | . 129 | ,313* | ,870" | -,828" | ,375 | -. 186 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 000 | . 384 | . 003 | . 000 | . 000 | . 000 | . 000 | . 421 | . 047 | . 000 | . 000 | . 016 | . 252 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | -,702" | . 158 | ,402* | ,693** | -,776" | ,621" | -,828* | . 085 | . 264 | ,868" | -,782" | ,378* | -. 144 | ,983** | ,966" | 1 |
|  | Sig. (2-tailed) | . 000 | . 325 | . 009 | . 000 | . 000 | . 000 | . 000 | . 598 | . 095 | . 000 | . 000 | . 015 | . 377 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| LU 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -. 256 | ,594" | -,800" | ,862" | -. 256 | ,487" | -. 115 | . 321 | -,593" | ,374* | -,586" | -. 146 | -. 246 | -. 285 |
|  | Sig. (2-tailed) |  | . 173 | . 001 | . 000 | . 000 | . 172 | . 006 | . 544 | . 084 | . 001 | . 042 | . 001 | . 440 | . 190 | . 126 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -. 256 | 1 | -. 013 | -. 340 | -. 078 | -. 097 | -. 047 | -. 172 | . 143 | . 160 | . 053 | -. 074 | -. 009 | -. 159 | . 081 |
|  | Sig. (2-tailed) | . 173 |  | . 947 | . 066 | . 683 | . 610 | . 807 | . 363 | .450 | . 399 | . 779 | . 697 | . 962 | 402 | . 672 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | ,594" | -. 013 | 1 | -,608" | ,480" | . 064 | . 153 | ,477" | -. 163 | -,388* | -. 005 | -. 201 | . 300 | . 152 | . 191 |
|  | Sig. (2-tailed) | . 001 | . 947 |  | . 000 | . 007 | . 737 | . 419 | . 008 | . 388 | . 034 | . 981 | . 288 | . 107 | . 422 | . 311 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,800" | -. 340 | -,608" | 1 | -,863** | ,431* | -,565" | . 155 | -,479" | ,609" | -,514" | ,713* | . 250 | ,445* | . 331 |
|  | Sig. (2-tailed) | . 000 | . 066 | . 000 |  | . 000 | . 017 | . 001 | . 413 | . 007 | . 000 | . 004 | . 000 | . 184 | . 014 | . 074 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,862" | -. 078 | ,480" | -,863" | 1 | -,635" | ,790" | -. 162 | ,645* | -,840" | ,729" | -,869" | -,503" | -,630" | -,610" |
|  | Sig. (2-tailed) | . 000 | . 683 | . 007 | . 000 |  | . 000 | . 000 | . 393 | . 000 | . 000 | . 000 | . 000 | . 005 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -. 256 | -. 097 | . 064 | ,431* | -,635" | 1 | -,948" | . 255 | -,803" | ,810" | -,982" | ,915" | ,867" | ,928" | ,847" |
|  | Sig. (2-tailed) | . 172 | . 610 | . 737 | . 017 | . 000 |  | . 000 | . 174 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | ,487" | -. 047 | . 153 | -,565" | ,790" | -,948" | 1 | -. 183 | ,764" | -,938" | ,968" | -,965" | -,794" | -,861" | -,829" |
|  | Sig. (2-tailed) | . 006 | . 807 | . 419 | . 001 | . 000 | . 000 |  | . 332 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -. 115 | -. 172 | ,477* | . 155 | -. 162 | . 255 | -. 183 | 1 | -,408* | -. 080 | -. 323 | . 262 | ,410* | ,453* | ,366* |
|  | Sig. (2-tailed) | . 544 | . 363 | . 008 | . 413 | . 393 | . 174 | . 332 |  | . 025 | . 675 | . 082 | . 162 | . 024 | . 012 | . 047 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | . 321 | . 143 | -. 163 | -,479" | ,645" | -,803" | ,764" | -,408* | 1 | -,667" | ,840" | -,789" | -,785" | -,827" | -,753** |
|  | Sig. (2-tailed) | . 084 | . 450 | . 388 | . 007 | . 000 | . 000 | . 000 | . 025 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -,593" | . 160 | -,388* | ,609" | -,840" | ,810" | -,938" | -. 080 | -,667" | 1 | -,854" | ,895" | ,631" | ,698" | ,698" |
|  | Sig. (2-tailed) | . 001 | . 399 | . 034 | . 000 | . 000 | . 000 | . 000 | . 675 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | , $374{ }^{*}$ | . 053 | -. 005 | -,514* | ,729" | -,982" | ,968" | -. 323 | ,840" | -,854" | 1 | -,949" | -,866" | -,941" | -,859" |
|  | Sig. (2-tailed) | . 042 | . 779 | . 981 | . 004 | . 000 | . 000 | . 000 | . 082 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | -,586" | -. 074 | -. 201 | ,713* | -,869" | ,915" | -,965" | . 262 | -,789" | ,895" | -,949" | 1 | ,774" | ,876" | ,830" |
|  | Sig. (2-tailed) | . 001 | . 697 | . 288 | . 000 | . 000 | . 000 | . 000 | . 162 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -. 146 | -. 009 | . 300 | . 250 | -,503** | ,867* | -,794" | ,410* | -,785" | ,631" | -,866" | ,774* | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | 440 | 962 | . 107 | . 184 | . 005 | . 000 | . 000 | . 024 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -. 246 | -. 159 | . 152 | ,445* | -,630" | ,928" | -,861" | ,453* | -,827" | ,698* | -,941" | ,876* | ,931" | 1 | ,877* |
|  | Sig. (2-tailed) | . 190 | . 402 | . 422 | . 014 | . 000 | . 000 | . 000 | . 012 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -. 285 | . 081 | . 191 | . 331 | -,610" | ,847* | -,829" | ,366* | -,753" | ,698" | -,859" | ,830" | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 126 | . 672 | . 311 | . 074 | . 000 | . 000 | . 000 | . 047 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| LV 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | LV 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 24 | 13037.0 | 18862.0 | 14943.792 | 1884.6287 | L_E_area_Non_MFIs | 24 | 13037.0 | 18862.0 | 14943.792 | 1884.6287 |
| L1 | 24 | 41.6904\% | 45.7514\% | 43.909864\% | 1.1698780\% | L1 | 24 | 41.6904\% | 45.7514\% | 43.909864\% | 1.1698780\% |
| L_EU_memb_Non_EMU_MFIs | 24 | 595.0 | 2471.0 | 1527.375 | 442.8385 | L_EU_memb_Non_EMU_MFIs | 24 | 595.0 | 2471.0 | 1527.375 | 442.8385 |
| L2 | 24 | 1.9027\% | 8.1444\% | 4.581852\% | 1.6093049\% | L2 | 24 | 1.9027\% | 8.1444\% | 4.581852\% | 1.6093049\% |
| L_EU_memb_Non_EMU_Non_MFIs | 24 | 237.0 | 452.0 | 323.833 | 61.6171 | L_EU_memb_Non_EMU_Non_MFIs | 24 | 237.0 | 452.0 | 323.833 | 61.6171 |
| L3 | 24 | .7123\% | 1.2013\% | .951001\% | .1327920\% | L3 | 24 | .7123\% | 1.2013\% | .951001\% | .1327920\% |
| L_Domestic_MFIs | 24 | 1261.0 | 4966.0 | 2758.958 | 850.5175 | L_Domestic_MFIs | 24 | 1261.0 | 4966.0 | 2758.958 | 850.5175 |
| L4 | 24 | 4.1562\% | 15.8805\% | 8.224420\% | 2.8348032\% | L4 | 24 | 4.1562\% | 15.8805\% | 8.224420\% | 2.8348032\% |
| L_Domestic_Non_MFIs | 24 | 12436.0 | 18317.0 | 14413.208 | 1889.9388 | L_Domestic_Non_MFIs | 24 | 12436.0 | 18317.0 | 14413.208 | 1889.9388 |
| L5 | 24 | 39.7685\% | 44.2745\% | 42.332863\% | 1.3668260\% | L5 | 24 | 39.7685\% | 44.2745\% | 42.332863\% | 1.3668260\% |
| Total loans (MFIs) | 24 | 3416.0 | 5561.0 | 4286.333 | 596.9576 | Total loans (MFIs) | 24 | 3416.0 | 5561.0 | 4286.333 | 596.9576 |
| Total loans (non-MFIs) | 24 | 25710.0 | 37631.0 | 29680.833 | 3814.8601 | Total loans (non-MFIs) | 24 | 25710.0 | 37631.0 | 29680.833 | 3814.8601 |
| TOTAL LOANS | 24 | 30051.0 | 41513.0 | 33967.167 | 3551.3877 | TOTAL LOANS | 24 | 30051.0 | 41513.0 | 33967.167 | 3551.3877 |
| D_E_area_MFls | 24 | 833.0 | 3839.0 | 2404.292 | 820.9452 | D_E_area_MFIs | 24 | 833.0 | 3839.0 | 2404.292 | 820.9452 |
| D1 | 24 | 2.7682\% | 13.5769\% | 8.952724\% | 3.1528611\% | D1 | 24 | 2.7682\% | 13.5769\% | 8.952724\% | 3.1528611\% |
| D_E_area_Non_MFIs | 24 | 8939.0 | 12898.0 | 10688.042 | 1198.9767 | D_E_area_Non_MFIs | 24 | 8939.0 | 12898.0 | 10688.042 | 1198.9767 |
| D2 | 24 | 33.7813\% | 42.8619\% | 39.305651\% | 3.0954309\% | D2 | 24 | 33.7813\% | 42.8619\% | 39.305651\% | 3.0954309\% |
| D_EU_memb_Non_EMU_MFIs | 24 | 936.0 | 4992.0 | 2245.750 | 1226.4896 | D_EU_memb_Non_EMU_MFIs | 24 | 936.0 | 4992.0 | 2245.750 | 1226.4896 |
| D3 | 24 | 3.4409\% | 17.2394\% | 8.300674\% | 4.4377914\% | D3 | 24 | 3.4409\% | 17.2394\% | 8.300674\% | 4.4377914\% |
| D_EU_memb_Non_EMU_Non_MFls | 24 | 707.0 | 2661.0 | 1732.875 | 616.6457 | D_EU_memb_Non_EMU_Non_MFls | 24 | 707.0 | 2661.0 | 1732.875 | 616.6457 |
| D4 | 24 | 2.5004\% | 9.5702\% | 6.349545\% | 2.0694193\% | D4 | 24 | 2.5004\% | 9.5702\% | 6.349545\% | 2.0694193\% |
| D_Domestic_MFls | 24 | 281.0 | 537.0 | 382.542 | 60.5855 | D_Domestic_MFls | 24 | 281.0 | 537.0 | 382.542 | 60.5855 |
| D5 | 24 | 1.0951\% | 1.9282\% | 1.410892\% | .2269980\% | D5 | 24 | 1.0951\% | 1.9282\% | 1.410892\% | .2269980\% |
| D_Domestic_Non_MFls | 24 | 8271.0 | 11676.0 | 9702.083 | 977.1983 | D_Domestic_Non_MFls | 24 | 8271.0 | 11676.0 | 9702.083 | 977.1983 |
| D6 | 24 | 31.9232\% | 38.8010\% | 35.680513\% | 2.2331071\% | D6 | 24 | 31.9232\% | 38.8010\% | 35.680513\% | 2.2331071\% |
| Total deposits (MFIs) | 24 | 3101.0 | 9030.0 | 5032.583 | 1928.7251 | Total deposits (MFIs) | 24 | 3101.0 | 9030.0 | 5032.583 | 1928.7251 |
| Total deposits (non-MFIs) | 24 | 18503.0 | 26909.0 | 22123.000 | 2699.4291 | Total deposits (non-MFIs) | 24 | 18503.0 | 26909.0 | 22123.000 | 2699.4291 |
| TOTAL DEPOSITS | 24 | 24765.0 | 30092.0 | 27155.583 | 1563.7627 | TOTAL DEPOSITS | 24 | 24765.0 | 30092.0 | 27155.583 | 1563.7627 |
| LTD gap | 24 | 3989.0 | 22214.0 | 11844.167 | 5932.7349 | LTD gap | 24 | 3989.0 | 22214.0 | 11844.167 | 5932.7349 |
| LTD | 24 | 1.1482404 | 2.1510441 | 1.5721081 | 0.3336319 | LTD | 24 | 1.1482404 | 2.1510441 | 1.5721081 | 0.3336319 |
| GLTDFq | 23 | -8.2034632 | 11.7261905 | 0.6445929 | 4.2620566 | GLTDFq | 23 | -8.2034632 | 11.7261905 | 0.6445929 | 4.2620566 |
| Valid N (listwise) | 23 |  |  |  |  | Valid N (listwise) | 23 |  |  |  |  |


| LV 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR 3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -. 129 | -. 075 | -,813" | ,989" | ,793* | -,811" | ,746" | -,798* | . 247 | -,764" | ,826" | . 097 | ,798" | ,835" | ,828" |
|  | Sig. (2-tailed) |  | . 548 | . 729 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 244 | . 000 | . 000 | . 661 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| L2 | Pearson Correlation | -. 129 | 1 | -. 182 | -,467 | -. 081 | -. 232 | ,421* | -,547" | ,449 ${ }^{\circ}$ | . 034 | ,412* | -,439* | -. 177 | -. 317 | -,443 | -. 291 |
|  | Sig. (2-tailed) | . 548 |  | . 395 | . 021 | . 705 | . 275 | . 041 | . 006 | . 028 | . 875 | . 045 | . 032 | . 418 | . 131 | . 030 | . 168 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| L3 | Pearson Correlation | -. 075 | -. 182 | 1 | . 121 | -. 070 | . 135 | -. 046 | . 057 | -. 185 | -. 242 | -. 044 | . 069 | -. 038 | . 094 | -. 048 | . 090 |
|  | Sig. (2-tailed) | . 729 | . 395 |  | . 574 | . 746 | . 528 | . 832 | . 793 | . 386 | . 255 | . 838 | . 750 | . 863 | . 664 | . 823 | . 674 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| L4 | Pearson Correlation | -,813* | -,467* | . 121 | 1 | -,841" | -,599" | ,495* | -. 356 | ,466* | -. 238 | ,460* | -,497* | . 022 | -,543" | -,493* | -,589" |
|  | Sig. (2-tailed) | . 000 | . 021 | . 574 |  | . 000 | . 002 | . 014 | . 088 | . 022 | . 262 | . 024 | . 014 | . 921 | . 006 | . 014 | . 002 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| L5 | Pearson Correlation | ,989" | -. 081 | -. 070 | -,841" | 1 | ,823" | -,823* | ,739" | -,794* | . 267 | -,780" | ,833" | . 086 | ,808" | ,834" | ,845" |
|  | Sig. (2-tailed) | . 000 | . 705 | . 746 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 208 | . 000 | . 000 | . 696 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| D1 | Pearson Correlation | ,793** | -. 232 | . 135 | -,599* | ,823* | 1 | -,896" | ,750" | -,821" | . 230 | -,922** | ,925* | -. 022 | ,839" | ,897" | ,792" |
|  | Sig. (2-tailed) | . 000 | . 275 | . 528 | . 002 | . 000 |  | . 000 | . 000 | . 000 | . 280 | . 000 | . 000 | . 919 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| D2 | Pearson Correlation | -,811" | ,421* | -. 046 | ,495 | -,823" | -,896" | 1 | -,951" | ,880" | -. 329 | ,986" | -,975" | -. 148 | -,827" | -,918" | -,860" |
|  | Sig. (2-tailed) | . 000 | . 041 | . 832 | . 014 | . 000 | . 000 |  | . 000 | . 000 | . 116 | . 000 | . 000 | . 500 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| D3 | Pearson Correlation | ,746" | -,547" | . 057 | -. 356 | ,739** | ,750" | -,951" | 1 | -,912" | . 238 | -,907* | ,929" | . 269 | ,765" | ,858" | ,816" |
|  | Sig. (2-tailed) | . 000 | . 006 | . 793 | . 088 | . 000 | . 000 | . 000 |  | . 000 | . 263 | . 000 | . 000 | . 214 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| D4 | Pearson Correlation | -,798* | ,449 | -. 185 | ,466* | -,794" | -,821" | ,880" | -,912" | 1 | -. 098 | ,835* | -,929" | -. 270 | -,829" | -,876" | -,827" |
|  | Sig. (2-tailed) | . 000 | . 028 | . 386 | . 022 | . 000 | . 000 | . 000 | . 000 |  | . 649 | . 000 | . 000 | . 214 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| D5 | Pearson Correlation | . 247 | . 034 | -. 242 | -. 238 | . 267 | . 230 | -. 329 | . 238 | -. 098 | 1 | -. 352 | . 259 | . 099 | . 164 | . 208 | . 327 |
|  | Sig. (2-tailed) | . 244 | . 875 | . 255 | . 262 | . 208 | . 280 | . 116 | . 263 | . 649 |  | . 091 | . 221 | . 653 | . 444 | . 328 | . 119 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| D6 | Pearson Correlation | -,764* | ,412* | -. 044 | ,460* | -,780" | -,922" | ,986" | -,907" | ,835* | -. 352 | 1 | -,966" | -. 050 | -,805" | -,910" | -,817" |
|  | Sig. (2-tailed) | . 000 | . 045 | . 838 | . 024 | . 000 | . 000 | . 000 | . 000 | . 000 | . 091 |  | . 000 | . 820 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| LTD | Pearson Correlation | ,826" | -,439* | . 069 | -,497* | ,833** | ,925" | -,975* | ,929" | -,929" | . 259 | -,966* | 1 | . 113 | ,869" | ,958" | ,878" |
|  | Sig. (2-tailed) | . 000 | . 032 | . 750 | . 014 | . 000 | . 000 | . 000 | . 000 | . 000 | . 221 | . 000 |  | . 607 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| GLTDFq | Pearson Correlation | . 097 | -. 177 | -. 038 | . 022 | . 086 | -. 022 | -. 148 | . 269 | -. 270 | . 099 | -. 050 | . 113 | 1 | . 138 | . 090 | . 216 |
|  | Sig. (2-tailed) | . 661 | . 418 | . 863 | . 921 | . 696 | . 919 | . 500 | . 214 | . 214 | . 653 | . 820 | . 607 |  | . 530 | . 682 | . 322 |
|  | N | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| ECB_IR_Deposit | Pearson Correlation | ,798" | -. 317 | . 094 | -,543* | ,808** | ,839" | -,827" | ,765" | -,829" | . 164 | -,805** | ,869" | . 138 | 1 | ,916" | ,937** |
|  | Sig. (2-tailed) | . 000 | . 131 | . 664 | . 006 | . 000 | . 000 | . 000 | . 000 | . 000 | . 444 | . 000 | . 000 | . 530 |  | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| ECB_IR_Loans | Pearson Correlation | ,835" | -,443* | -. 048 | -,493* | ,834* | ,897* | -,918" | ,858" | -,876" | . 208 | -,910" | ,958" | . 090 | ,916" | 1 | ,871" |
|  | Sig. (2-tailed) | . 000 | . 030 | . 823 | . 014 | . 000 | . 000 | . 000 | . 000 | . 000 | . 328 | . 000 | . 000 | . 682 | . 000 |  | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |
| EURIBOR_3M | Pearson Correlation | ,828" | -. 291 | . 090 | -,589" | ,845* | ,792* | -,860" | ,816" | -,827** | . 327 | -,817** | ,878" | . 216 | ,937** | ,871" | 1 |
|  | Sig. (2-tailed) | . 000 | . 168 | . 674 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 | . 119 | . 000 | . 000 | . 322 | . 000 | . 000 |  |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 | 24 |


| LV 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -. 129 | -. 075 | -,813" | ,989" | ,793" | -,811" | ,746" | -,798" | . 247 | -,764" | ,826" | ,798" | ,835" | ,828** |
|  | Sig. (2-tailed) |  | . 548 | . 729 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 244 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| L2 | Pearson Correlation | -. 129 | 1 | -. 182 | -,467 | -. 081 | -. 232 | ,421* | -,547" | ,449 ${ }^{\text {a }}$ | . 034 | ,412* | -,439 ${ }^{\text {² }}$ | -. 317 | -,443* | -. 291 |
|  | Sig. (2-tailed) | . 548 |  | . 395 | . 021 | . 705 | . 275 | . 041 | . 006 | . 028 | . 875 | . 045 | . 032 | . 131 | . 030 | . 168 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| L3 | Pearson Correlation | -. 075 | -. 182 | 1 | . 121 | -. 070 | . 135 | -. 046 | . 057 | -. 185 | -. 242 | -. 044 | . 069 | . 094 | -. 048 | . 090 |
|  | Sig. (2-tailed) | . 729 | . 395 |  | . 574 | . 746 | . 528 | . 832 | . 793 | . 386 | . 255 | . 838 | . 750 | . 664 | . 823 | . 674 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| L4 | Pearson Correlation | -,813" | -,467* | . 121 | 1 | -841" | -,599" | ,495* | -. 356 | ,466* | -. 238 | ,460* | -,497* | -,543" | -,493* | -,589" |
|  | Sig. (2-tailed) | . 000 | . 021 | . 574 |  | . 000 | . 002 | . 014 | . 088 | . 022 | . 262 | . 024 | . 014 | . 006 | . 014 | . 002 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| L5 | Pearson Correlation | ,989* | -. 081 | -. 070 | -,841" | 1 | ,823" | -,823" | ,739" | -,794* | . 267 | -,780" | ,833" | ,808" | ,834* | ,845" |
|  | Sig. (2-tailed) | . 000 | . 705 | . 746 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 208 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| D1 | Pearson Correlation | ,793" | -. 232 | . 135 | -,599" | ,823" | 1 | -,896" | ,750" | -,821* | . 230 | -,922" | ,925* | ,839" | ,897" | ,792" |
|  | Sig. (2-tailed) | . 000 | . 275 | . 528 | . 002 | . 000 |  | . 000 | . 000 | . 000 | . 280 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| D2 | Pearson Correlation | -,811" | ,421* | -. 046 | ,495* | -,823" | -,896" | 1 | -,951" | ,880" | -. 329 | ,986" | -,975" | -,827" | -,918* | -,860" |
|  | Sig. (2-tailed) | . 000 | . 041 | . 832 | . 014 | . 000 | . 000 |  | . 000 | . 000 | . 116 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| D3 | Pearson Correlation | ,746" | -,547" | . 057 | -. 356 | ,739" | ,750" | -,951" | 1 | -,912* | . 238 | -,907" | ,929" | ,765" | ,858" | ,816"* |
|  | Sig. (2-tailed) | . 000 | . 006 | . 793 | . 088 | . 000 | . 000 | . 000 |  | . 000 | . 263 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| D4 | Pearson Correlation | -,798" | ,449 | -. 185 | ,466 ${ }^{\circ}$ | -,794" | -,821" | ,880" | -,912" | 1 | -. 098 | ,835" | -,929" | -,829" | -,876" | -,827" |
|  | Sig. (2-tailed) | . 000 | . 028 | . 386 | . 022 | . 000 | . 000 | . 000 | . 000 |  | . 649 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| D5 | Pearson Correlation | . 247 | . 034 | -. 242 | -. 238 | . 267 | . 230 | -. 329 | . 238 | -. 098 | 1 | -. 352 | . 259 | . 164 | . 208 | . 327 |
|  | Sig. (2-tailed) | . 244 | . 875 | . 255 | . 262 | . 208 | . 280 | . 116 | . 263 | . 649 |  | . 091 | . 221 | . 444 | . 328 | . 119 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| D6 | Pearson Correlation | -,764" | ,412* | -. 044 | ,460 | -,780" | -,922" | ,986" | -,907" | ,835* | -. 352 | 1 | -,966" | -,805" | -,910" | -,817" |
|  | Sig. (2-tailed) | . 000 | . 045 | . 838 | . 024 | . 000 | . 000 | . 000 | . 000 | . 000 | . 091 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| LTD | Pearson Correlation | ,826" | -,439* | . 069 | -,497* | ,833" | ,925* | -,975" | ,929" | -,929" | . 259 | -,966" | 1 | ,869" | ,958* | ,878" |
|  | Sig. (2-tailed) | . 000 | . 032 | . 750 | . 014 | . 000 | . 000 | . 000 | . 000 | . 000 | . 221 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| ECB_IR_Deposit | Pearson Correlation | ,798" | -. 317 | . 094 | -,543* | ,808" | ,839" | -,827" | ,765" | -,829" | . 164 | -,805" | ,869" | 1 | ,916" | ,937" |
|  | Sig. (2-tailed) | . 000 | . 131 | . 664 | . 006 | . 000 | . 000 | . 000 | . 000 | . 000 | . 444 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| ECB_IR_Loans | Pearson Correlation | ,835" | -,443* | -. 048 | -,493* | ,834" | ,897" | -,918* | ,858" | -,876" | . 208 | -,910" | ,958" | ,916" | 1 | ,871" |
|  | Sig. (2-tailed) | . 000 | . 030 | . 823 | . 014 | . 000 | . 000 | . 000 | . 000 | . 000 | . 328 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| EURIBOR_3M | Pearson Correlation | ,828" | -. 291 | . 090 | -,589" | ,845" | ,792" | -,860" | ,816" | -,827" | . 327 | -,817" | ,878" | ,937" | ,871" | 1 |
|  | Sig. (2-tailed) | . 000 | . 168 | . 674 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 | . 119 | . 000 | . 000 | . 000 | . 000 |  |
|  | N | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |


| MT 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | MT 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 6435.0 | 11468.0 | 9533.829 | 1324.6992 | L_E_area_Non_MFIs | 30 | 9204.0 | 11468.0 | 10195.533 | 589.6498 |
| L1 | 41 | 35.8055\% | 47.8439\% | 40.704280\% | 2.8193520\% | L1 | 30 | 35.8055\% | 43.1358\% | 39.624304\% | 1.9910581\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 420.0 | 7042.0 | 3807.683 | 1779.8743 | L_EU_memb_Non_EMU_MFIs | 30 | 2478.0 | 7042.0 | 4613.567 | 1261.8550 |
| L2 | 41 | 3.1227\% | 25.9192\% | 15.260059\% | 5.7858574\% | L2 | 30 | 10.9491\% | 25.9192\% | 17.753681\% | 4.2540110\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 371.0 | 2585.0 | 1340.756 | 549.0835 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 900.0 | 2365.0 | 1290.533 | 424.1786 |
| L3 | 41 | 2.6590\% | 11.1784\% | 5.798298\% | 2.6748093\% | L3 | 30 | 3.3395\% | 10.2670\% | 5.078316\% | 1.9677058\% |
| L_Domestic_MFIs | 41 | 524.0 | 2630.0 | 1120.854 | 471.0312 | L_Domestic_MFIs | 30 | 524.0 | 2630.0 | 1232.433 | 483.0511 |
| L4 | 41 | 2.2819\% | 9.3758\% | 4.727090\% | 1.6336896\% | L4 | 30 | 2.2819\% | 9.3758\% | 4.730587\% | 1.6667087\% |
| L_Domestic_Non_MFIs | 41 | 5380.0 | 9307.0 | 7849.024 | 1148.9922 | L_Domestic_Non_MFIs | 30 | 7229.0 | 9307.0 | 8444.067 | 589.7803 |
| L5 | 41 | 28.6650\% | 40.0000\% | 33.510274\% | 2.7226644\% | L5 | 30 | 28.6650\% | 37.7956\% | 32.813112\% | 2.0787110\% |
| Total loans (MFIs) | 41 | 1264.0 | 7904.0 | 4928.537 | 1953.2883 | Total loans (MFIs) | 30 | 3433.0 | 7904.0 | 5846.000 | 1319.9497 |
| Total loans (non-MFIs) | 41 | 12186.0 | 21736.0 | 18723.610 | 2459.5943 | Total loans (non-MFIs) | 30 | 18655.0 | 21736.0 | 19930.133 | 886.7605 |
| TOTAL LOANS | 41 | 13450.0 | 28321.0 | 23652.146 | 4159.4320 | TOTAL LOANS | 30 | 22369.0 | 28321.0 | 25776.133 | 1692.3086 |
| D_E_area_MFls | 41 | 6456.0 | 11948.0 | 7929.366 | 1234.5633 | D_E_area_MFls | 30 | 6456.0 | 9896.0 | 7824.433 | 998.2933 |
| D1 | 41 | 13.8155\% | 36.5863\% | 23.181628\% | 6.3614317\% | D1 | 30 | 13.8155\% | 30.6186\% | 21.006323\% | 5.7257129\% |
| D_E_area_Non_MFIs | 41 | 7311.0 | 18137.0 | 11227.366 | 3255.4898 | D_E_area_Non_MFls | 30 | 8822.0 | 18137.0 | 12330.333 | 3129.1046 |
| D2 | 41 | 27.3326\% | 38.2443\% | 30.870807\% | 2.8552235\% | D2 | 30 | 27.5030\% | 38.2443\% | 31.404988\% | 3.1165090\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 1977.0 | 10085.0 | 5275.854 | 2650.0422 | D_EU_memb_Non_EMU_MFIs | 30 | 1977.0 | 10085.0 | 6062.300 | 2653.8337 |
| D3 | 41 | 6.7289\% | 23.8450\% | 14.133327\% | 5.2977790\% | D3 | 30 | 6.8399\% | 23.8450\% | 15.122326\% | 5.4756228\% |
| D_EU_memb_Non_EMU_Non_MFIs | 41 | 245.0 | 1145.0 | 517.366 | 268.5279 | D_EU_memb_Non_EMU_Non_MFIs | 30 | 270.0 | 1145.0 | 605.833 | 262.5162 |
| D4 | 41 | .8404\% | 2.7664\% | 1.374861\% | .4896315\% | D4 | 30 | .8404\% | 2.7664\% | 1.517373\% | .5008729\% |
| D_Domestic_MFls | 41 | 62.0 | 1707.0 | 630.951 | 471.8771 | D_Domestic_MFls | 30 | 283.0 | 1707.0 | 769.633 | 456.5013 |
| D5 | 41 | .2384\% | 5.1232\% | 1.820525\% | 1.4970886\% | D5 | 30 | .5967\% | 5.1232\% | $2.175668 \%$ | 1.5369268\% |
| D_Domestic_Non_MFls | 41 | 6957.0 | 16318.0 | 10332.415 | 2670.8926 | D_Domestic_Non_MFls | 30 | 8482.0 | 16318.0 | 11231.067 | 2566.4125 |
| D6 | 41 | 25.1738\% | 34.5857\% | 28.618853\% | 2.3207652\% | D6 | 30 | 25.1738\% | 34.5857\% | 28.773322\% | 2.6305318\% |
| Total deposits (MFIs) | 41 | 10463.0 | 18765.0 | 13836.171 | 2427.1820 | Total deposits (MFIs) | 30 | 11001.0 | 18765.0 | 14656.367 | 2208.4254 |
| Total deposits (non-MFIs) | 41 | 14517.0 | 34914.0 | 22077.146 | 6104.7661 | Total deposits (non-MFIs) | 30 | 17652.0 | 34914.0 | 24167.233 | 5830.2989 |
| TOTAL DEPOSITS | 41 | 25435.0 | 49374.0 | 35913.317 | 7490.6876 | TOTAL DEPOSITS | 30 | 28904.0 | 49374.0 | 38823.600 | 6540.1684 |
| LTD gap | 41 | -7606.0 | 9097.0 | 1575.000 | 4724.3071 | LTD gap | 30 | -7606.0 | 9097.0 | 1608.900 | 5418.4330 |
| LTD | 41 | . 7755150 | 1.5033754 | 1.1074924 | . 2010062 | LTD | 30 | . 7755150 | 1.5033754 | 1.1165001 | . 2250353 |
| GLTDFq | 40 | -4.6684492 | 3.2000000 | . 1694697 | 1.7038244 | GLTDFq | 30 | -4.0462963 | 2.1845238 | -. 0033554 | 1.2037369 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| MT 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,921" | . 012 | . 059 | ,875" | . 187 | . 073 | -. 152 | -. 279 | -,551" | . 159 | -,519" | . 211 | ,507" | ,447** | ,486" |
|  | Sig. (2-tailed) |  | . 000 | . 938 | . 713 | . 000 | . 242 | . 649 | . 343 | . 077 | . 000 | . 320 | . 001 | . 190 | . 001 | . 003 | . 001 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | -,921" | 1 | -. 236 | -. 251 | -,789" | -. 231 | -. 096 | . 201 | . 306 | ,667" | -. 202 | ,504" | -. 133 | -,609" | -,539" | -,582" |
|  | Sig. (2-tailed) | . 000 |  | . 138 | . 113 | . 000 | . 146 | . 552 | . 207 | . 051 | . 000 | . 205 | . 001 | . 414 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | . 012 | -. 236 | 1 | -. 282 | -,325* | ,718" | -,379* | -,577" | -,410" | . 070 | -. 144 | ,462" | -. 121 | ,575" | ,589" | ,638" |
|  | Sig. (2-tailed) | . 938 | . 138 |  | . 074 | . 038 | . 000 | . 014 | . 000 | . 008 | . 662 | . 370 | . 002 | . 456 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | . 059 | -. 251 | -. 282 | 1 | . 150 | -,390* | ,492** | . 148 | -. 003 | -,489" | ,442" | -,466" | -. 074 | -. 115 | -. 143 | -. 167 |
|  | Sig. (2-tailed) | . 713 | . 113 | . 074 |  | . 351 | . 012 | . 001 | . 355 | . 987 | . 001 | . 004 | . 002 | . 652 | . 472 | . 374 | . 296 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,875" | -,789" | -,325* | . 150 | 1 | -. 173 | . 205 | . 208 | . 042 | -,623" | . 141 | -,707* | . 245 | . 274 | . 191 | . 207 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 038 | . 351 |  | . 279 | . 198 | . 193 | . 793 | . 000 | . 379 | . 000 | . 127 | . 083 | . 233 | . 194 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | . 187 | -. 231 | ,718* | -,390 | -. 173 | 1 | -,721* | -,687* | -,661" | ,351* | -,372* | ,653* | . 027 | ,676" | ,757" | ,738" |
|  | Sig. (2-tailed) | . 242 | . 146 | . 000 | . 012 | . 279 |  | . 000 | . 000 | . 000 | . 025 | . 017 | . 000 | . 867 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | . 073 | -. 096 | -,379* | ,492" | . 205 | -,721" | 1 | . 041 | . 227 | -,426" | ,881" | -,742" | -. 087 | -,434" | -,546" | -,464" |
|  | Sig. (2-tailed) | . 649 | . 552 | . 014 | . 001 | . 198 | . 000 |  | . 801 | . 153 | . 005 | . 000 | . 000 | . 594 | . 005 | . 000 | . 002 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -. 152 | . 201 | -,577* | . 148 | . 208 | -,687" | . 041 | 1 | ,729" | -,346* | -,380* | -,345* | . 062 | -,368 | -,398" | -,438" |
|  | Sig. (2-tailed) | . 343 | . 207 | . 000 | . 355 | . 193 | . 000 | . 801 |  | . 000 | . 027 | . 014 | . 027 | . 704 | . 018 | . 010 | . 004 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | -. 279 | . 306 | -,410" | -. 003 | . 042 | -,661" | . 227 | ,729" | 1 | -. 229 | -. 194 | -,348* | -. 107 | -,519" | -,592" | -,553" |
|  | Sig. (2-tailed) | . 077 | . 051 | . 008 | . 987 | . 793 | . 000 | . 153 | . 000 |  | . 150 | . 223 | . 026 | . 513 | . 001 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -,551" | ,667" | . 070 | -,489" | -,623" | ,351 | -,426" | -,346* | -. 229 | 1 | -. 243 | ,783* | -. 054 | -. 271 | -. 156 | -. 211 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 662 | . 001 | . 000 | . 025 | . 005 | . 027 | . 150 |  | . 125 | . 000 | . 741 | . 086 | . 331 | . 185 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | . 159 | -. 202 | -. 144 | ,442" | . 141 | -,372* | ,881" | -,380* | -. 194 | -. 243 | 1 | -,521" | -. 053 | -. 195 | -. 270 | -. 199 |
|  | Sig. (2-tailed) | . 320 | . 205 | . 370 | . 004 | . 379 | . 017 | . 000 | . 014 | . 223 | . 125 |  | . 000 | . 744 | . 223 | . 088 | . 212 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | -,519* | ,504** | ,462** | -,466" | -,707* | ,653" | -,742" | -,345* | -,348* | ,783" | -,521" | 1 | -. 021 | . 104 | . 259 | . 182 |
|  | Sig. (2-tailed) | . 001 | . 001 | . 002 | . 002 | . 000 | . 000 | . 000 | . 027 | . 026 | . 000 | . 000 |  | . 899 | . 519 | . 102 | . 254 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | . 211 | -. 133 | -. 121 | -. 074 | . 245 | . 027 | -. 087 | . 062 | -. 107 | -. 054 | -. 053 | -. 021 | 1 | . 163 | . 221 | . 111 |
|  | Sig. (2-tailed) | . 190 | . 414 | . 456 | . 652 | . 127 | . 867 | . 594 | . 704 | . 513 | . 741 | . 744 | . 899 |  | . 315 | . 171 | . 497 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | ,507* | -,609" | ,575* | -. 115 | . 274 | ,676" | -,434** | -,368* | -,519** | -. 271 | -. 195 | . 104 | . 163 | 1 | ,975* | ,983* |
|  | Sig. (2-tailed) | . 001 | . 000 | . 000 | . 472 | . 083 | . 000 | . 005 | . 018 | . 001 | . 086 | . 223 | . 519 | . 315 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | ,447" | -,539" | ,589" | -. 143 | . 191 | ,757" | -,546" | -,398* | -,592" | -. 156 | -. 270 | . 259 | . 221 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 003 | . 000 | . 000 | . 374 | . 233 | . 000 | . 000 | . 010 | . 000 | . 331 | . 088 | . 102 | . 171 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | ,486" | -,582" | ,638* | -. 167 | . 207 | ,738" | -,464" | -,438* | -,553* | -. 211 | -. 199 | . 182 | . 111 | ,983" | ,966" | 1 |
|  | Sig. (2-tailed) | . 001 | . 000 | . 000 | . 296 | . 194 | . 000 | . 002 | . 004 | . 000 | . 185 | . 212 | . 254 | . 497 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| MT 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,903" | . 032 | . 028 | ,838** | -. 289 | ,551" | -. 124 | . 057 | -,460* | ,492" | -,627" | -,397* | -,472" | -. 178 |
|  | Sig. (2-tailed) |  | . 000 | . 867 | . 885 | . 000 | . 121 | . 002 | . 513 | . 767 | . 011 | . 006 | . 000 | . 030 | . 009 | . 347 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -,903" | 1 | -. 215 | -. 297 | -,740" | . 247 | -,552" | . 131 | -. 086 | ,581" | -,480" | ,614" | ,434* | ,464" | . 228 |
|  | Sig. (2-tailed) | . 000 |  | . 254 | . 111 | . 000 | . 187 | . 002 | . 490 | . 651 | . 001 | . 007 | . 000 | . 017 | . 010 | . 225 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | . 032 | -. 215 | 1 | -. 261 | -. 328 | ,772" | -,446* | -,491** | -. 342 | . 279 | -. 228 | ,560" | ,488" | ,603* | ,554** |
|  | Sig. (2-tailed) | . 867 | . 254 |  | . 164 | . 077 | . 000 | . 013 | . 006 | . 064 | . 136 | . 227 | . 001 | . 006 | . 000 | . 001 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | . 028 | -. 297 | -. 261 | 1 | . 027 | -,455* | ,570" | . 068 | . 004 | -,532" | ,484* | -,468" | -,517" | -,426* | -,485* |
|  | Sig. (2-tailed) | . 885 | . 111 | . 164 |  | . 888 | . 011 | . 001 | . 720 | . 984 | . 002 | . 007 | . 009 | . 003 | . 019 | . 007 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,838" | -,740" | -. 328 | . 027 | 1 | -,595* | ,568" | . 261 | ,443* | -,586" | . 338 | -,810" | -,554" | -,727" | -,432* |
|  | Sig. (2-tailed) | . 000 | . 000 | . 077 | . 888 |  | . 001 | . 001 | . 164 | . 014 | . 001 | . 068 | . 000 | . 001 | . 000 | . 017 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -. 289 | . 247 | ,772" | -,455* | -,595" | 1 | -,718" | -,620" | ,579" | ,767" | -,372* | ,868" | ,790" | ,848" | ,759" |
|  | Sig. (2-tailed) | . 121 | . 187 | . 000 | . 011 | . 001 |  | . 000 | . 000 | . 001 | . 000 | . 043 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | ,551" | -,552" | -,446* | ,570" | ,568" | -,718" | 1 | -. 075 | . 099 | -,644" | ,892" | -,854" | -,805" | -,801" | -,641" |
|  | Sig. (2-tailed) | . 002 | . 002 | . 013 | . 001 | . 001 | . 000 |  | . 694 | . 602 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -. 124 | . 131 | -,491* | . 068 | . 261 | -,620" | -. 075 | 1 | ,756" | , $516{ }^{\prime \prime}$ | -,486" | -. 333 | -. 265 | -. 343 | -,368* |
|  | Sig. (2-tailed) | . 513 | . 490 | . 006 | . 720 | . 164 | . 000 | . 694 |  | . 000 | . 004 | . 007 | . 072 | . 156 | . 063 | . 045 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | . 057 | -. 086 | -. 342 | . 004 | ,443* | -,579" | . 099 | ,756" | 1 | -,568" | -. 289 | -,471" | -. 288 | -,450* | -,376* |
|  | Sig. (2-tailed) | . 767 | . 651 | . 064 | . 984 | . 014 | . 001 | . 602 | . 000 |  | . 001 | . 122 | . 009 | . 122 | . 013 | . 040 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -,460* | ,581" | . 279 | -,532" | -,586" | ,767" | -,644" | -,516** | , 568" | 1 | -. 310 | ,820" | ,671" | ,709" | ,534" |
|  | Sig. (2-tailed) | . 011 | . 001 | . 136 | . 002 | . 001 | . 000 | . 000 | . 004 | . 001 |  | . 096 | . 000 | . 000 | . 000 | . 002 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | ,492" | -,480" | -. 228 | ,484" | . 338 | -,372* | ,892" | -,486** | -. 289 | -. 310 | 1 | -,573* | -,550" | -,511" | -,367* |
|  | Sig. (2-tailed) | . 006 | . 007 | . 227 | . 007 | . 068 | . 043 | . 000 | . 007 | . 122 | . 096 |  | . 001 | . 002 | . 004 | . 046 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | -,627" | ,614" | ,560" | -,468" | -,810" | ,868* | -,854" | -. 333 | -471" | ,820" | -,573" | 1 | ,841" | ,941" | ,739" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 001 | . 009 | . 000 | . 000 | . 000 | . 072 | . 009 | . 000 | . 001 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -,397* | ,434* | ,488" | -,517" | -,554" | ,790" | -,805" | -. 265 | -. 288 | ,671" | -,550" | ,841" | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 030 | . 017 | . 006 | 003 | . 001 | . 000 | . 000 | . 156 | . 122 | . 000 | . 002 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -,472" | ,464" | ,603" | -,426 ${ }^{*}$ | -,727* | ,848* | -,801" | -. 343 | -,450* | ,709" | -,511" | ,941" | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 009 | . 010 | . 000 | . 019 | . 000 | . 000 | . 000 | . 063 | . 013 | . 000 | . 004 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -. 178 | . 228 | ,554" | -,485" | -,432* | ,759" | -,641" | -,368* | -,376* | ,534" | -,367* | ,739" | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 347 | . 225 | . 001 | . 007 | . 017 | . 000 | . 000 | . 045 | . 040 | . 002 | . 046 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| NL 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | NL 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 881619.0 | 1229567.0 | 1071911.073 | 91162.6761 | L_E_area_Non_MFls | 30 | 1012598.0 | 1229567.0 | 1111554.567 | 65980.2845 |
| L1 | 41 | 42.8540\% | 48.0108\% | 45.364595\% | 1.4919090\% | L1 | 30 | 43.5868\% | 48.0108\% | 46.008741\% | 1.1470174\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 102692.0 | 295969.0 | 170238.585 | 61004.5940 | L_EU_memb_Non_EMU_MFIs | 30 | 102692.0 | 194656.0 | 138257.667 | 28099.3982 |
| L2 | 41 | 4.0007\% | 13.4131\% | 7.353103\% | 2.9967570\% | L2 | 30 | 4.0007\% | 8.7053\% | 5.771058\% | 1.3847572\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 20898.0 | 69243.0 | 40756.073 | 13761.0951 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 22273.0 | 69243.0 | 44274.967 | 13934.6189 |
| L3 | 41 | .9904\% | 2.6619\% | 1.703739\% | .4890873\% | L3 | 30 | .9904\% | 2.6619\% | 1.815336\% | .5064008\% |
| L_Domestic_MFIs | 41 | 33437.0 | 222325.0 | 94064.341 | 49615.4721 | L_Domestic_MFIs | 30 | 39267.0 | 222325.0 | 109218.433 | 49010.7911 |
| L4 | 41 | 1.6707\% | 8.9577\% | 3.911292\% | 1.9057339\% | L4 | 30 | 1.6912\% | 8.9577\% | 4.480092\% | 1.8978449\% |
| L_Domestic_Non_MFIs | 41 | 842866.0 | 1091542.0 | 983361.463 | 63220.5668 | L_Domestic_Non_MFIs | 30 | 936808.0 | 1091542.0 | 1012129.967 | 41498.9567 |
| L5 | 41 | 40.2580\% | 43.2556\% | 41.667270\% | .8701984\% | L5 | 30 | 40.2580\% | 43.2556\% | 41.924773\% | .8061165\% |
| Total loans (MFIs) | 41 | 155571.0 | 361815.0 | 264302.927 | 51903.3485 | Total loans (MFIs) | 30 | 155571.0 | 361815.0 | 247476.100 | 47740.4730 |
| Total loans (non-MFIs) | 41 | 1745383.0 | 2382875.0 | 2096028.610 | 165429.3465 | Total loans (non-MFIs) | 30 | 1975908.0 | 2382875.0 | 2167959.500 | 118930.8927 |
| TOTAL LOANS | 41 | 2001394.0 | 2625662.0 | 2360331.537 | 149156.7796 | TOTAL LOANS | 30 | 2227463.0 | 2625662.0 | 2415435.600 | 118608.3791 |
| D_E_area_MFIs | 41 | 136307.0 | 312487.0 | 174071.780 | 38689.9059 | D_E_area_MFIs | 30 | 136307.0 | 181215.0 | 156460.700 | 12811.1151 |
| D1 | 41 | 6.4908\% | 14.4582\% | 8.554807\% | 2.0790516\% | D1 | 30 | 6.4908\% | 8.6670\% | 7.429088\% | .5506852\% |
| D_E_area_Non_MFls | 41 | 623965.0 | 1038730.0 | 858216.854 | 107739.0623 | D_E_area_Non_MFls | 30 | 807275.0 | 1038730.0 | 905548.267 | 76251.0030 |
| D2 | 41 | 36.3227\% | 46.0306\% | 41.716269\% | 2.6035741\% | D2 | 30 | 39.9510\% | 46.0306\% | 42.918557\% | 1.8259199\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 75612.0 | 220242.0 | 146866.707 | 37747.8492 | D_EU_memb_Non_EMU_MFIs | 30 | 75612.0 | 197808.0 | 135985.733 | 35339.6200 |
| D3 | 41 | 3.5419\% | 10.9569\% | 7.241930\% | 2.0327969\% | D3 | 30 | 3.5419\% | 9.5056\% | 6.500561\% | 1.8385992\% |
| D_EU_memb_Non_EMU_Non_MFIs | 41 | 28388.0 | 61941.0 | 42120.463 | 8642.1468 | D_EU_memb_Non_EMU_Non_MFIs | 30 | 28388.0 | 61941.0 | 43006.400 | 8544.3967 |
| D4 | 41 | 1.3523\% | 2.6834\% | 2.046211\% | .3367342\% | D4 | 30 | 1.3523\% | 2.6626\% | 2.034436\% | . $3506180 \%$ |
| D_Domestic_MFls | 41 | 16436.0 | 76737.0 | 40010.098 | 16044.4243 | D_Domestic_MFls | 30 | 16436.0 | 68426.0 | 36011.833 | 14893.9379 |
| D5 | 41 | .8119\% | 3.7886\% | 1.969657\% | .8025875\% | D5 | 30 | .8119\% | 3.2638\% | 1.719836\% | .7358514\% |
| D_Domestic_Non_MFls | 41 | 590773.0 | 942939.0 | 790750.390 | 87633.1112 | D_Domestic_Non_MFls | 30 | 756846.0 | 942939.0 | 830664.367 | 54654.0795 |
| D6 | 41 | 34.0543\% | 41.0854\% | 38.471126\% | 1.8622495\% | D6 | 30 | 37.7102\% | 41.0854\% | 39.397523\% | .9736913\% |
| Total deposits (MFIs) | 41 | 236868.0 | 582249.0 | 360948.585 | 81271.5144 | Total deposits (MFIs) | 30 | 236868.0 | 423111.0 | 328458.267 | 53929.5275 |
| Total deposits (non-MFIs) | 41 | 1244790.0 | 2030148.0 | 1691087.707 | 199317.7880 | Total deposits (non-MFIs) | 30 | 1613541.0 | 2030148.0 | 1779219.033 | 135427.4749 |
| TOTAL DEPOSITS | 41 | 1585994.0 | 2343254.0 | 2052036.293 | 168343.4515 | TOTAL DEPOSITS | 30 | 1957326.0 | 2343254.0 | 2107677.300 | 114386.3975 |
| LTD gap | 41 | 532733.0 | 828032.0 | 669243.829 | 92922.1694 | LTD gap | 30 | 532733.0 | 767479.0 | 636216.567 | 76273.1677 |
| LTD | 41 | 1.2682327 | 1.6106190 | 1.4061917 | 0.0995474 | LTD | 30 | 1.2682327 | 1.4476498 | 1.3609118 | 0.0588979 |
| GLTDFq | 40 | -6.0079109 | 76.5654490 | 2.6244127 | 12.1509365 | GLTDFq | 30 | -6.0079109 | 76.5654490 | 3.4689696 | 13.9539897 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| NL 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,802" | ,650" | . 009 | ,661" | -,779" | ,853** | -,815** | . 002 | -,680" | ,859** | -,899" | . 114 | -,799** | -,882" | -,794** |
|  | Sig. (2-tailed) |  | . 000 | . 000 | . 954 | . 000 | . 000 | . 000 | . 000 | . 989 | . 000 | . 000 | . 000 | . 483 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | -,802" | 1 | -,626" | -,589" | -,428" | ,864" | -,887" | ,804" | -. 061 | ,683" | -,886" | ,826" | -. 017 | ,917" | ,933* | ,902" |
|  | Sig. (2-tailed) | . 000 |  | . 000 | . 000 | . 005 | . 000 | . 000 | . 000 | . 707 | . 000 | . 000 | . 000 | . 919 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | ,650" | -,626" | 1 | . 218 | . 001 | -,401" | ,722" | -,777** | ,401" | -,778" | ,551" | -,603" | -. 022 | -,462" | -,587" | -,516" |
|  | Sig. (2-tailed) | . 000 | . 000 |  | . 171 | . 996 | . 009 | . 000 | . 000 | . 009 | . 000 | . 000 | . 000 | . 891 | . 002 | . 000 | . 001 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | . 009 | -,589" | . 218 | 1 | -. 301 | -,373* | ,328* | -. 260 | . 140 | -. 177 | . 293 | -. 241 | -. 168 | -,459" | -,391* | -,440" |
|  | Sig. (2-tailed) | . 954 | . 000 | . 171 |  | . 056 | . 016 | . 036 | . 100 | . 384 | . 267 | . 063 | . 130 | . 300 | . 003 | . 011 | . 004 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,661" | -,428" | . 001 | -. 301 | 1 | -,595" | ,467" | -,366* | -,327* | -,360* | ,625" | -,438" | . 236 | -,522" | -,514" | -,491" |
|  | Sig. (2-tailed) | . 000 | . 005 | . 996 | . 056 |  | . 000 | . 002 | . 018 | . 037 | . 021 | . 000 | . 004 | . 142 | . 000 | . 001 | . 001 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | -,779" | ,864" | -,401" | -,373* | -,595" | 1 | -,868" | ,687* | . 085 | ,636" | -,943" | ,771" | -. 095 | ,950" | ,934" | ,922" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 009 | . 016 | . 000 |  | . 000 | . 000 | . 597 | . 000 | . 000 | . 000 | . 558 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | ,853" | -,887" | ,722" | ,328* | ,467" | -,868" | 1 | -,944** | -. 013 | -,834" | ,962" | -,783" | . 035 | -,867* | -,926" | -,884" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 036 | . 002 | . 000 |  | . 000 | . 936 | . 000 | . 000 | . 000 | . 831 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -,815" | ,804* | -,777* | -. 260 | -,366* | ,687* | -,944" | 1 | . 007 | ,763" | -,869" | ,740" | . 033 | ,727" | ,824" | ,746" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 100 | . 018 | . 000 | . 000 |  | . 966 | . 000 | . 000 | . 000 | . 839 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | . 002 | -. 061 | ,401" | . 140 | -,327* | . 085 | -. 013 | . 007 | 1 | -,333* | -. 122 | -. 023 | . 043 | . 089 | . 044 | . 094 |
|  | Sig. (2-tailed) | . 989 | . 707 | . 009 | . 384 | . 037 | . 597 | . 936 | . 966 |  | . 033 | . 448 | . 886 | . 794 | . 579 | . 784 | . 558 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -,680" | ,683" | -,778* | -. 177 | -,360* | ,636" | -,834" | ,763* | -,333* | 1 | -,748" | ,517" | -. 124 | ,600" | ,671" | ,650" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 267 | . 021 | . 000 | . 000 | . 000 | . 033 |  | . 000 | . 001 | . 446 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | ,859** | -,886" | ,551" | . 293 | ,625" | -,943" | ,962" | -,869" | -. 122 | -,748* | 1 | -,792" | . 067 | -,917" | -,945" | -,905" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 063 | . 000 | . 000 | . 000 | . 000 | . 448 | . 000 |  | . 000 | . 682 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | -,899** | ,826** | -,603" | -. 241 | -,438" | ,771" | -,783" | ,740" | -. 023 | ,517" | -,792" | 1 | . 032 | ,797" | ,871" | ,755" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 130 | . 004 | . 000 | . 000 | . 000 | . 886 | . 001 | . 000 |  | . 847 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | . 114 | -. 017 | -. 022 | -. 168 | . 236 | -. 095 | . 035 | . 033 | . 043 | -. 124 | . 067 | . 032 | 1 | -. 084 | -. 053 | -. 071 |
|  | Sig. (2-tailed) | . 483 | . 919 | . 891 | . 300 | . 142 | . 558 | . 831 | . 839 | . 794 | . 446 | . 682 | . 847 |  | . 605 | . 743 | . 665 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | -,799** | ,917* | -,462" | -,459" | -,522" | ,950" | -,867" | ,727* | . 089 | ,600" | -,917* | ,797* | -. 084 | 1 | ,975" | ,983* |
|  | Sig. (2-tailed) | . 000 | . 000 | . 002 | . 003 | . 000 | . 000 | . 000 | . 000 | . 579 | . 000 | . 000 | . 000 | . 605 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | -,882" | ,933" | -,587* | -,391* | -,514" | ,934" | -,926" | ,824* | . 044 | ,671" | -,945" | ,871" | -. 053 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 011 | . 001 | . 000 | . 000 | . 000 | . 784 | . 000 | . 000 | . 000 | . 743 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | -,794* | ,902" | -,516" | -,440" | -,491" | ,922* | -,884" | ,746* | . 094 | ,650" | -,905* | ,755" | -. 071 | ,983* | ,966" | 1 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 001 | . 004 | . 001 | . 000 | . 000 | . 000 | . 558 | . 000 | . 000 | . 000 | . 665 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| NL 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,425* | ,662" | -,674" | ,478** | -,624" | ,730" | -,706" | . 070 | -,633" | ,770" | -,864** | -,677* | -,818" | -,629" |
|  | Sig. (2-tailed) |  | . 019 | . 000 | . 000 | . 008 | . 000 | . 000 | . 000 | . 713 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -,425* | 1 | -,804" | -. 343 | . 199 | ,526" | -,873" | ,830" | -. 220 | ,790" | -,744" | ,419* | ,755" | ,755" | ,754" |
|  | Sig. (2-tailed) | 019 |  | . 000 | . 064 | . 293 | . 003 | . 000 | . 000 | . 243 | . 000 | . 000 | . 021 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | ,662" | -,804" | 1 | . 001 | -. 190 | -,608* | ,882" | -,841" | ,415* | -,815" | ,745* | -,690" | -,823** | -,869" | -,748" |
|  | Sig. (2-tailed) | . 000 | . 000 |  | . 997 | . 314 | . 000 | . 000 | . 000 | . 022 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,674* | -. 343 | . 001 | 1 | -,808" | . 290 | -. 074 | . 065 | . 168 | . 079 | -. 269 | ,450* | . 020 | . 178 | -. 002 |
|  | Sig. (2-tailed) | . 000 | . 064 | . 997 |  | . 000 | . 120 | . 698 | . 734 | . 374 | . 678 | . 151 | . 013 | . 917 | . 347 | . 992 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,478" | . 199 | -. 190 | -,808" | 1 | -. 317 | . 081 | -. 045 | -,379* | -. 130 | . 348 | -. 116 | . 136 | -. 007 | . 074 |
|  | Sig. (2-tailed) | . 008 | . 293 | . 314 | . 000 |  | . 088 | . 670 | . 812 | . 039 | . 493 | . 060 | . 542 | . 474 | . 969 | . 697 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -,624" | ,526* | -,608* | . 290 | -. 317 | 1 | -,709" | ,543* | -,370* | ,812" | -,742" | ,442* | ,447* | ,571" | ,471" |
|  | Sig. (2-tailed) | . 000 | . 003 | . 000 | . 120 | . 088 |  | . 000 | . 002 | . 044 | . 000 | . 000 | . 014 | . 013 | . 001 | . 009 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | ,730" | -,873" | ,882" | -. 074 | . 081 | -,709" | 1 | -,966" | . 187 | -,875" | ,944" | -,659" | -,784" | -,869" | -,742" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 698 | . 670 | . 000 |  | . 000 | .321 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -,706* | ,830" | -,841" | . 065 | -. 045 | ,543** | -,966" | 1 | -. 106 | ,761" | -,920" | ,690" | ,778** | ,856" | ,689" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 734 | . 812 | . 002 | . 000 |  | . 577 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | . 070 | -. 220 | ,415 | . 168 | -,379* | -,370* | . 187 | -. 106 | 1 | -,476" | . 058 | -. 181 | -. 114 | -. 208 | -. 016 |
|  | Sig. (2-tailed) | . 713 | . 243 | . 022 | . 374 | . 039 | . 044 | . 321 | . 577 |  | . 008 | . 761 | . 337 | . 550 | . 269 | . 935 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -,633" | ,790" | -,815" | . 079 | -. 130 | ,812" | -,875" | ,761" | -,476" | 1 | -,840" | ,502" | ,608" | ,720" | ,581" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 678 | . 493 | . 000 | . 000 | . 000 | . 008 |  | . 000 | . 005 | . 000 | . 000 | . 001 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | ,770" | -,744" | ,745" | -. 269 | . 348 | -,742" | ,944* | -,920" | . 058 | -,840" | 1 | -,631" | -,669" | -,779" | -,610" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 151 | . 060 | . 000 | . 000 | . 000 | . 761 | . 000 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | -,864** | ,419 | -,690** | ,450 | -. 116 | ,442* | -,659" | ,690" | -. 181 | ,502" | -,631" | 1 | ,755" | ,840" | ,605* |
|  | Sig. (2-tailed) | . 000 | . 021 | . 000 | . 013 | . 542 | . 014 | . 000 | . 000 | . 337 | . 005 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -,677* | ,755* | -,823* | . 020 | . 136 | ,447* | -,784* | ,778* | -. 114 | ,608* | -,669" | ,755* | 1 | ,931" | ,919* |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 917 | . 474 | . 013 | . 000 | . 000 | . 550 | . 000 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -,818** | ,755* | -,869** | . 178 | -. 007 | ,571* | -,869" | ,856" | -. 208 | ,720" | -,779" | ,840" | ,931* | 1 | ,877* |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 347 | . 969 | . 001 | . 000 | . 000 | . 269 | . 000 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -,629" | ,754" | -,748* | -. 002 | . 074 | ,471* | -,742" | ,689" | -. 016 | ,581" | -,610" | ,605" | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 992 | . 697 | . 009 | . 000 | . 000 | . 935 | . 001 | . 000 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| PT 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | PT 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 218466.0 | 293890.0 | 257111.561 | 25595.1930 | L_E_area_Non_MFIs | 30 | 218466.0 | 293890.0 | 260758.067 | 26626.0157 |
| L1 | 41 | 45.5385\% | 48.0518\% | 47.251659\% | .6313439\% | L1 | 30 | 45.5385\% | 48.0518\% | 47.156854\% | .6947793\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 6214.0 | 22991.0 | 12248.732 | 4760.4138 | L_EU_memb_Non_EMU_MFIs | 30 | 6214.0 | 22991.0 | 13622.833 | 4873.1325 |
| L2 | 41 | 1.1640\% | 4.0858\% | 2.236528\% | .7901121\% | L2 | 30 | 1.1640\% | 4.0858\% | 2.451575\% | .8132755\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 694.0 | 1355.0 | 1077.366 | 120.9444 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 923.0 | 1355.0 | 1094.633 | 100.6450 |
| L3 | 41 | .1491\% | .2421\% | .198459\% | .0183436\% | L3 | 30 | .1747\% | .2397\% | .198759\% | .0160440\% |
| L_Domestic_MFls | 41 | 13384.0 | 31430.0 | 22326.220 | 4281.1082 | L_Domestic_MFls | 30 | 13384.0 | 31430.0 | 22402.933 | 4764.3041 |
| L4 | 41 | 2.7716\% | 5.4640\% | 4.090717\% | .6045353\% | L4 | 30 | 2.7716\% | 5.4640\% | 4.032087\% | .6683585\% |
| L_Domestic_Non_MFIs | 41 | 215490.0 | 285720.0 | 251345.488 | 23164.5005 | L_Domestic_Non_MFIs | 30 | 215490.0 | 285720.0 | 255053.167 | 23912.5132 |
| L5 | 41 | 44.8681\% | 47.0769\% | 46.222637\% | .5111619\% | L5 | 30 | 44.8681\% | 47.0769\% | 46.160725\% | .5787031\% |
| Total loans (MFIs) | 41 | 23172.0 | 53606.0 | 34574.951 | 7462.6798 | Total loans (MFIs) | 30 | 23172.0 | 53606.0 | 36025.767 | 8182.6982 |
| Total loans (non-MFIs) | 41 | 435022.0 | 580818.0 | 509534.415 | 48814.4844 | Total loans (non-MFIs) | 30 | 435022.0 | 580818.0 | 516905.867 | 50581.6614 |
| TOTAL LOANS | 41 | 458194.0 | 617415.0 | 544109.366 | 53215.1929 | TOTAL LOANS | 30 | 458194.0 | 617415.0 | 552931.633 | 55227.6548 |
| D_E_area_MFIs | 41 | 58281.0 | 111296.0 | 81829.707 | 15950.9462 | D_E_area_MFIs | 30 | 58281.0 | 111296.0 | 84877.100 | 17221.9822 |
| D1 | 41 | 10.7435\% | 17.6394\% | 14.744575\% | 2.0127591\% | D1 | 30 | 10.7435\% | 17.6394\% | 14.132366\% | 2.0138808\% |
| D_E_area_Non_MFls | 41 | 157229.0 | 241728.0 | 209027.293 | 23727.6673 | D_E_area_Non_MFls | 30 | 206504.0 | 241728.0 | 221637.000 | 9616.9744 |
| D2 | 41 | 33.6444\% | 40.8788\% | 37.785850\% | 2.0262988\% | D2 | 30 | 33.6444\% | 40.8788\% | 37.329097\% | 2.1824812\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 7521.0 | 29358.0 | 18578.585 | 5996.7529 | D_EU_memb_Non_EMU_MFIs | 30 | 7521.0 | 29358.0 | 19288.433 | 6856.7855 |
| D3 | 41 | 1.3893\% | 4.8678\% | 3.334491\% | .8914753\% | D3 | 30 | 1.3893\% | 4.8678\% | 3.183020\% | .9660706\% |
| D_EU_memb_Non_EMU_Non_MFls | 41 | 345.0 | 1474.0 | 962.732 | 381.0574 | D_EU_memb_Non_EMU_Non_MFIs | 30 | 350.0 | 1419.0 | 971.367 | 391.7956 |
| D4 | 41 | .0655\% | . $3212 \%$ | .175713\% | .0726977\% | D4 | 30 | .0668\% | .2356\% | .161402\% | .0614383\% |
| D_Domestic_MFls | 41 | 16550.0 | 83343.0 | 44858.902 | 20909.2543 | D_Domestic_MFls | 30 | 26114.0 | 83343.0 | 53830.933 | 16866.3256 |
| D5 | 41 | 3.8639\% | 12.3227\% | 7.708170\% | 2.7158342\% | D5 | 30 | 4.9816\% | 12.3227\% | 8.874467\% | 2.1725235\% |
| D_Domestic_Non_MFls | 41 | 144221.0 | 237176.0 | 201175.024 | 27110.7524 | D_Domestic_Non_MFls | 30 | 197098.0 | 237176.0 | 215743.233 | 11134.9118 |
| D6 | 41 | 33.0266\% | 39.8204\% | 36.251201\% | 1.7962243\% | D6 | 30 | 33.0266\% | 39.8204\% | 36.319649\% | 2.0875921\% |
| Total deposits (MFIs) | 41 | 97981 | 223997 | 145267.20 | 38781.985 | Total deposits (MFIs) | 30 | 103288 | 223997 | 157996.47 | 37520.428 |
| Total deposits (non-MFIs) | 41 | 302610 | 480175 | 411165.05 | 50820.551 | Total deposits (non-MFIs) | 30 | 403952 | 480175 | 438351.60 | 20800.754 |
| TOTAL DEPOSITS | 41 | 402859.0 | 693569.0 | 556432.244 | 82345.6608 | TOTAL DEPOSITS | 30 | 524213.0 | 693569.0 | 596348.067 | 51939.3234 |
| LTD gap | 41 | 20114 | 204087 | 132944.32 | 57154.797 | LTD gap | 30 | 20114 | 204087 | 114580.03 | 56016.006 |
| LTD | 41 | 1.0459140 | 1.5758787 | 1.3387378 | 0.1711270 | LTD | 30 | 1.0459140 | 1.4962421 | 1.2634512 | 0.1350767 |
| GLTDFq | 40 | -11.5277631 | 21.2290419 | 0.6297035 | 4.4421015 | GLTDFq | 30 | -11.5277631 | 21.2290419 | 0.3287158 | 4.9479527 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| PT 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,852" | . 120 | -,536" | ,711" | . 024 | ,611" | -. 224 | -,483" | -,667" | ,423" | . 301 | . 043 | . 296 | . 265 | ,352* |
|  | Sig. (2-tailed) |  | . 000 | . 455 | . 000 | . 000 | . 883 | . 000 | . 159 | . 001 | . 000 | . 006 | . 056 | . 793 | . 060 | . 094 | . 024 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | -,852" | 1 | -. 260 | . 143 | -,653" | -. 033 | -,750" | ,372* | . 287 | ,789" | -,506" | -,349* | . 042 | -,443" | -,387 | -,492" |
|  | Sig. (2-tailed) | . 000 |  | . 101 | . 374 | . 000 | . 836 | . 000 | . 017 | . 069 | . 000 | . 001 | . 025 | . 799 | . 004 | . 013 | . 001 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | . 120 | -. 260 | 1 | -. 007 | . 226 | -,379* | ,400" | -,489" | . 045 | -. 179 | ,485" | -. 269 | -. 266 | . 008 | -. 061 | . 002 |
|  | Sig. (2-tailed) | . 455 | . 101 |  | . 967 | . 156 | . 015 | . 010 | . 001 | . 778 | . 263 | . 001 | . 089 | . 098 | . 961 | . 706 | . 991 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -,536" | . 143 | -. 007 | 1 | -,741" | ,411" | -. 290 | . 231 | . 104 | . 102 | -,406" | . 298 | . 004 | . 171 | . 243 | . 188 |
|  | Sig. (2-tailed) | 000 | . 374 | . 967 |  | . 000 | . 008 | . 066 | . 146 | . 516 | . 527 | . 009 | . 058 | . 978 | . 286 | . 126 | . 239 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,711" | -,653" | . 226 | -,741" | 1 | -,450" | ,733* | -,553* | . 029 | -,510** | ,721" | -. 175 | -. 114 | . 117 | -. 015 | 102 |
|  | Sig. (2-tailed) | 000 | . 000 | . 156 | . 000 |  | . 003 | . 000 | . 000 | . 858 | . 001 | . 000 | . 274 | . 482 | . 466 | . 927 | . 524 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | 024 | -. 033 | -,379* | ,411* | -,450" | 1 | -,434" | ,697* | -. 056 | -. 113 | -,804" | ,857" | ,429" | ,611" | ,726" | ,643** |
|  | Sig. (2-tailed) | . 883 | . 836 | . 015 | . 008 | . 003 |  | . 005 | . 000 | . 729 | . 483 | . 000 | . 000 | . 006 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | ,611" | -,750" | ,400" | -. 290 | ,733" | -,434" | 1 | -,497* | -. 006 | -,834" | ,866" | . 043 | -. 229 | . 297 | . 183 | . 283 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 010 | . 066 | . 000 | . 005 |  | . 001 | . 972 | . 000 | . 000 | . 789 | . 156 | . 059 | . 252 | . 073 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -. 224 | ,372* | -,489" | . 231 | -,553" | ,697* | -,497" | 1 | . 090 | . 028 | -,763* | ,626" | . 256 | , $381{ }^{\circ}$ | ,514" | ,359* |
|  | Sig. (2-tailed) | . 159 | . 017 | . 001 | . 146 | . 000 | . 000 | . 001 |  | . 577 | . 863 | . 000 | . 000 | . 110 | . 014 | . 001 | . 021 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | -,483" | . 287 | . 045 | . 104 | . 029 | -. 056 | -. 006 | . 090 | 1 | . 020 | -. 047 | -. 062 | -. 061 | . 237 | . 184 | . 148 |
|  | Sig. (2-tailed) | . 001 | . 069 | . 778 | . 516 | . 858 | . 729 | . 972 | . 577 |  | . 900 | . 772 | . 702 | . 710 | . 136 | . 250 | . 355 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -,667" | ,789" | -. 179 | . 102 | -,510" | -. 113 | -,834" | . 028 | . 020 | 1 | -,460" | -575" | . 023 | -,698" | -,651" | -,698" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 263 | . 527 | . 001 | . 483 | . 000 | . 863 | . 900 |  | . 002 | . 000 | . 888 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | ,423" | -,506" | ,485" | -,406" | ,721" | -,804** | ,866" | -,763" | -. 047 | -,460" | 1 | ,448" | -,374 | -. 164 | -. 298 | -. 170 |
|  | Sig. (2-tailed) | . 006 | . 001 | . 001 | . 009 | . 000 | . 000 | . 000 | . 000 | . 772 | . 002 |  | . 003 | . 018 | . 305 | . 058 | . 289 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | . 301 | -,349* | -. 269 | . 298 | -. 175 | ,857* | . 043 | ,626* | -. 062 | -,575* | -,448" | 1 | ,361* | ,814" | ,890" | ,825" |
|  | Sig. (2-tailed) | . 056 | . 025 | . 089 | . 058 | . 274 | . 000 | . 789 | . 000 | . 702 | . 000 | . 003 |  | . 022 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | . 043 | . 042 | -. 266 | . 004 | -. 114 | ,429" | -. 229 | . 256 | -. 061 | . 023 | -,374* | ,361* | 1 | . 151 | . 195 | . 108 |
|  | Sig. (2-tailed) | . 793 | . 799 | . 098 | . 978 | . 482 | . 006 | . 156 | . 110 | . 710 | . 888 | . 018 | . 022 |  | . 352 | . 227 | . 505 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | . 296 | -,443* | . 008 | . 171 | . 117 | ,611* | . 297 | ,381* | . 237 | -,698** | -. 164 | ,814" | . 151 | 1 | ,975* | ,983** |
|  | Sig. (2-tailed) | . 060 | . 004 | . 961 | . 286 | . 466 | . 000 | . 059 | . 014 | . 136 | . 000 | . 305 | . 000 | . 352 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | . 265 | $-, 387^{*}$ | -. 061 | . 243 | -. 015 | ,726" | . 183 | ,514* | . 184 | -,651" | -. 298 | ,890" | . 195 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 094 | . 013 | . 706 | . 126 | . 927 | . 000 | . 252 | . 001 | . 250 | . 000 | . 058 | . 000 | . 227 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | ,352* | -,492* | . 002 | . 188 | . 102 | ,643* | . 283 | ,359* | . 148 | -,698* | -. 170 | ,825* | . 108 | ,983** | ,966" | 1 |
|  | Sig. (2-tailed) | . 024 | . 001 | . 991 | . 239 | . 524 | . 000 | . 073 | . 021 | . 355 | . 000 | . 289 | . 000 | . 505 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| PT 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,867" | . 186 | -,614" | ,722** | -. 138 | ,596" | -. 305 | -,679" | -,762" | ,465" | . 181 | . 176 | . 071 | . 302 |
|  | Sig. (2-tailed) |  | . 000 | . 324 | . 000 | . 000 | . 466 | . 001 | . 102 | . 000 | . 000 | . 010 | . 337 | . 352 | . 711 | . 105 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -,867" | 1 | -,392* | . 278 | -,674" | . 273 | -,724" | ,575" | ,584" | ,787* | -,609" | -. 032 | . 004 | . 070 | -. 178 |
|  | Sig. (2-tailed) | . 000 |  | . 032 | . 137 | . 000 | . 144 | . 000 | . 001 | . 001 | . 000 | . 000 | . 865 | . 985 | . 712 | . 347 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | . 186 | -,392* | 1 | -. 089 | ,402* | -,544" | ,539" | -,642" | . 099 | -. 334 | ,603" | -,524" | -. 351 | -. 345 | -. 174 |
|  | Sig. (2-tailed) | . 324 | . 032 |  | . 639 | . 027 | . 002 | . 002 | . 000 | . 601 | . 072 | . 000 | . 003 | . 058 | . 062 | . 359 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,614" | . 278 | -. 089 | 1 | -,805* | ,410* | -,390* | . 243 | . 060 | . 311 | -,426* | . 308 | . 170 | . 351 | . 142 |
|  | Sig. (2-tailed) | . 000 | . 137 | . 639 |  | . 000 | . 024 | . 033 | . 195 | . 751 | . 095 | . 019 | . 098 | . 368 | . 058 | . 456 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,722" | -,674" | ,402 | -,805" | 1 | -,676* | ,737* | -,705* | -. 077 | -,541" | ,773" | -,513" | -,404* | -,579** | -. 272 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 027 | . 000 |  | . 000 | . 000 | . 000 | . 684 | . 002 | . 000 | . 004 | . 027 | . 001 | . 147 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -. 138 | . 273 | -,544" | ,410* | -,676** | 1 | -,788" | ,726* | -. 338 | ,417* | -,901" | ,842" | ,780" | ,866" | ,668" |
|  | Sig. (2-tailed) | . 466 | . 144 | . 002 | . 024 | . 000 |  | . 000 | . 000 | . 068 | . 022 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | ,596" | -,724" | ,539" | -,390 | ,737** | -,788" | 1 | -,729" | -. 217 | -,873" | ,967" | -,391* | -,471" | -,534** | -. 294 |
|  | Sig. (2-tailed) | . 001 | . 000 | . 002 | . 033 | . 000 | . 000 |  | . 000 | . 250 | . 000 | . 000 | . 033 | . 009 | . 002 | . 115 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -. 305 | ,575" | -,642" | . 243 | -,705* | ,726" | -,729" | 1 | -. 179 | ,404* | -,815" | ,662" | ,624" | ,706" | ,430* |
|  | Sig. (2-tailed) | . 102 | . 001 | . 000 | . 195 | . 000 | . 000 | . 000 |  | . 344 | . 027 | . 000 | . 000 | . 000 | . 000 | . 018 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | -,679" | ,584" | . 099 | . 060 | -. 077 | -. 338 | -. 217 | -. 179 | 1 | ,595" | -. 013 | -,656" | -,449* | -,506* | -,516" |
|  | Sig. (2-tailed) | . 000 | . 001 | . 601 | . 751 | . 684 | . 068 | . 250 | . 344 |  | . 001 | . 945 | . 000 | . 013 | . 004 | . 004 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -,762" | ,787" | -. 334 | . 311 | -,541" | ,417 | -,873" | ,404* | ,595* | 1 | -,734" | -. 084 | . 068 | . 094 | -. 098 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 072 | . 095 | . 002 | . 022 | . 000 | . 027 | . 001 |  | . 000 | . 658 | . 721 | . 622 | . 605 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | ,465" | -,609" | ,603" | -,426 ${ }^{\circ}$ | ,773** | -,901" | ,967" | -,815" | -. 013 | -,734" | 1 | -,603" | -,606" | -,687" | -,419* |
|  | Sig. (2-tailed) | . 010 | . 000 | . 000 | . 019 | . 000 | . 000 | . 000 | . 000 | . 945 | . 000 |  | . 000 | . 000 | . 000 | . 021 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | . 181 | -. 032 | -,524" | . 308 | -,513* | ,842" | -,391* | ,662" | -,656" | -. 084 | -,603" | 1 | ,771" | ,859" | ,683" |
|  | Sig. (2-tailed) | . 337 | . 865 | . 003 | . 098 | . 004 | . 000 | . 033 | . 000 | . 000 | . 658 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | . 176 | . 004 | -. 351 | . 170 | -,404* | ,780" | -,471" | ,624" | -,449* | . 068 | -,606" | ,771" | 1 | ,931" | ,919* |
|  | Sig. (2-tailed) | . 352 | . 985 | . 058 | . 368 | . 027 | . 000 | . 009 | . 000 | . 013 | . 721 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | . 071 | . 070 | -. 345 | . 351 | -,579** | ,866" | -,534" | ,706" | -,506" | . 094 | -,687" | ,859" | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 711 | . 712 | . 062 | . 058 | . 001 | . 000 | . 002 | . 000 | . 004 | . 622 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | . 302 | -. 178 | -. 174 | . 142 | -. 272 | ,668" | -. 294 | ,430* | -,516" | -. 098 | -,419* | ,683" | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 105 | . 347 | . 359 | . 456 | . 147 | . 000 | . 115 | . 018 | . 004 | . 605 | . 021 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| SI 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | SI 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 18267.0 | 33802.0 | 28172.634 | 5072.7907 | L_E_area_Non_MFIs | 30 | 20997.0 | 33802.0 | 29303.400 | 4728.4330 |
| L1 | 41 | 45.4309\% | 48.2902\% | 46.879474\% | .7937337\% | L1 | 30 | 45.4309\% | 47.8093\% | 46.579797\% | .5804220\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 49.0 | 250.0 | 139.854 | 50.6214 | L_EU_memb_Non_EMU_MFIs | 30 | 49.0 | 235.0 | 132.700 | 48.7613 |
| L2 | 41 | .0738\% | .5078\% | .246381\% | .1148932\% | L2 | 30 | .0738\% | .5078\% | . $224751 \%$ | . $1156058 \%$ |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 37.0 | 1028.0 | 350.171 | 320.0705 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 132.0 | 1028.0 | 436.667 | 334.1639 |
| L3 | 41 | .0902\% | 1.7091\% | .628175\% | .6203649\% | L3 | 30 | .1824\% | 1.7091\% | .781392\% | .6622818\% |
| L_Domestic_MFIs | 41 | 1625.0 | 4962.0 | 3432.732 | 997.0382 | L_Domestic_MFIs | 30 | 2725.0 | 4962.0 | 3880.767 | 712.8937 |
| L4 | 41 | 3.1863\% | 7.7843\% | 5.708977\% | 1.2845638\% | L4 | 30 | 4.1928\% | 7.7843\% | 6.193254\% | .7480931\% |
| L_Domestic_Non_MFIs | 41 | 18168.0 | 33551.0 | 27965.902 | 5033.0168 | L_Domestic_Non_MFIs | 30 | 20844.0 | 33551.0 | 29077.933 | 4695.8104 |
| L5 | 41 | 45.0301\% | 47.9854\% | 46.536994\% | .8145032\% | L5 | 30 | 45.0301\% | 47.5226\% | 46.220807\% | .5935196\% |
| Total loans (MFIs) | 41 | 1766.0 | 5047.0 | 3572.585 | 968.1179 | Total loans (MFIs) | 30 | 2891.0 | 5047.0 | 4013.467 | 680.4219 |
| Total loans (non-MFIs) | 41 | 36485.0 | 67533.0 | 56488.707 | 9990.9440 | Total loans (non-MFIs) | 30 | 42423.0 | 67533.0 | 58818.000 | 9155.7383 |
| TOTAL LOANS | 41 | 39301.0 | 72362.0 | 60061.293 | 10602.5808 | TOTAL LOANS | 30 | 45566.0 | 72362.0 | 62831.467 | 9641.7433 |
| D_E_area_MFls | 41 | 3602.0 | 17866.0 | 11817.756 | 4289.7135 | D_E_area_MFls | 30 | 3602.0 | 17002.0 | 11402.267 | 4567.2611 |
| D1 | 41 | 6.5901\% | 27.9475\% | 19.095589\% | 6.0677978\% | D1 | 30 | 6.5901\% | 25.9814\% | 17.359331\% | 6.0037484\% |
| D_E_area_Non_MFls | 41 | 16793.0 | 25097.0 | 22502.049 | 2553.1718 | D_E_area_Non_MFls | 30 | 21845.0 | 25097.0 | 23905.233 | 807.2689 |
| D2 | 41 | 32.1679\% | 45.4151\% | 37.026395\% | 3.8023447\% | D2 | 30 | 33.3822\% | 45.4151\% | 37.717123\% | 4.0710529\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 7.0 | 2319.0 | 909.951 | 768.7671 | D_EU_memb_Non_EMU_MFIs | 30 | 7.0 | 1740.0 | 585.167 | 552.9166 |
| D3 | 41 | .0125\% | 4.3768\% | 1.519694\% | 1.3543234\% | D3 | 30 | .0125\% | 2.6590\% | .864009\% | .8125696\% |
| D_EU_memb_Non_EMU_Non_MFIs | 41 | 21.0 | 213.0 | 68.537 | 57.8347 | D_EU_memb_Non_EMU_Non_MFIs | 30 | 23.0 | 213.0 | 80.067 | 62.3720 |
| D4 | 41 | .0346\% | . $3543 \%$ | .116128\% | .1014915\% | D4 | 30 | .0346\% | . $3543 \%$ | .133630\% | . $1113904 \%$ |
| D_Domestic_MFls | 41 | 698.0 | 7184.0 | 3692.390 | 2025.0553 | D_Domestic_MFls | 30 | 1657.0 | 7184.0 | 4476.000 | 1761.5630 |
| D5 | 41 | 1.5337\% | 10.6024\% | 5.784349\% | 2.7829197\% | D5 | 30 | 3.0316\% | 10.6024\% | 6.875656\% | 2.3948145\% |
| D_Domestic_Non_MFIs | 41 | 16717.0 | 24788.0 | 22152.268 | 2436.1338 | D_Domestic_Non_MFls | 30 | 21418.0 | 24788.0 | 23488.633 | 791.5641 |
| D6 | 41 | 31.8301\% | 44.6668\% | 36.457845\% | 3.6438318\% | D6 | 30 | 33.0460\% | 44.6668\% | 37.050251\% | 3.9092639\% |
| Total deposits (MFIs) | 41 | 5270 | 23427 | 16420.10 | 5731.401 | Total deposits (MFIs) | 30 | 5270 | 23427 | 16463.43 | 6211.786 |
| Total deposits (non-MFIs) | 41 | 33532 | 49909 | 44722.85 | 5006.514 | Total deposits (non-MFIs) | 30 | 43498 | 49909 | 47473.93 | 1592.652 |
| TOTAL DEPOSITS | 41 | 44262.0 | 70276.0 | 61142.951 | 7617.4074 | TOTAL DEPOSITS | 30 | 54658.0 | 70276.0 | 63937.367 | 5646.8541 |
| LTD gap | 41 | -3822 | 25568 | 15338.44 | 9341.091 | LTD gap | 30 | -3822 | 25129 | 15357.53 | 10196.388 |
| LTD | 41 | . 9226128 | 1.6245084 | 1.3465046 | . 2029047 | LTD | 30 | . 9226128 | 1.5478873 | 1.3267663 | . 2166754 |
| GLTDFq | 40 | -15.5833333 | 7.8370370 | . 0994538 | 4.5125936 | GLTDFq | 30 | -15.5833333 | 7.8370370 | -. 3875217 | 4.8648455 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| SI 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | . 073 | -,701" | -,919" | ,999" | ,779" | -,659" | ,896" | -,646" | -,385* | -,630" | ,626" | . 186 | ,774" | ,817 ${ }^{\text {* }}$ | ,811" |
|  | Sig. (2-tailed) |  | . 650 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 013 | . 000 | . 000 | . 250 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | . 073 | 1 | . 277 | -,324* | . 087 | $-, 360^{\circ}$ | ,498" | . 109 | ,387* | -,637" | ,516" | -,574" | -. 270 | . 207 | . 104 | . 170 |
|  | Sig. (2-tailed) | . 650 |  | . 080 | . 039 | . 587 | . 021 | . 001 | . 498 | . 013 | . 000 | . 001 | . 000 | . 092 | . 193 | . 519 | . 288 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | -,701" | . 277 | 1 | ,372* | -,704" | -,841" | ,793" | -,682" | ,948* | . 051 | ,761" | -,755" | -. 053 | -,520" | -,671" | -,563" |
|  | Sig. (2-tailed) | . 000 | . 080 |  | . 017 | . 000 | . 000 | . 000 | . 000 | . 000 | . 751 | . 000 | . 000 | . 746 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -,919" | -,324* | ,372* | 1 | -,919" | -,537* | , 394* | -,808* | ,314* | ,529" | ,371* | -,363* | -. 186 | -,744" | -,715" | -,768" |
|  | Sig. (2-tailed) | . 000 | . 039 | . 017 |  | . 000 | . 000 | . 011 | . 000 | . 045 | . 000 | . 017 | . 020 | . 251 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,999" | . 087 | -,704" | -,919" | 1 | ,780" | -,653" | ,906** | -,643" | -,408" | -,623** | ,618" | . 187 | ,786" | ,828** | ,826" |
|  | Sig. (2-tailed) | . 000 | . 587 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 008 | . 000 | . 000 | . 249 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | ,779** | -,360* | -,841" | -,537** | ,780" | 1 | -,965** | ,801* | -,780" | 020 | -,950" | ,920" | . 246 | ,622" | ,731** | ,683" |
|  | Sig. (2-tailed) | . 000 | . 021 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 902 | . 000 | . 000 | . 126 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | -,659" | ,498** | ,793** | , $394 *$ | -,653" | -,965" | 1 | -,658" | ,747" | -. 276 | ,998* | -,968" | -. 213 | -,461" | -,585" | -,517" |
|  | Sig. (2-tailed) | . 000 | . 001 | . 000 | . 011 | . 000 | . 000 |  | . 000 | . 000 | . 080 | . 000 | . 000 | . 188 | . 002 | . 000 | . 001 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | ,896" | . 109 | -,682" | -,808** | ,906" | ,801" | -,658* | 1 | -,573" | -,496" | -,625" | ,562" | . 258 | ,903" | ,936" | ,923" |
|  | Sig. (2-tailed) | . 000 | . 498 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 001 | . 000 | . 000 | . 108 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | -,646" | ,387* | ,948** | ,314* | -,643" | -,780" | ,747* | -,573" | 1 | -. 014 | ,715* | -,734" | -. 123 | -,397* | -,553" | -,448" |
|  | Sig. (2-tailed) | . 000 | . 013 | . 000 | . 045 | . 000 | . 000 | . 000 | . 000 |  | 929 | . 000 | . 000 | . 448 | . 010 | . 000 | . 003 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -,385* | -,637* | . 051 | ,529** | -,408" | . 020 | -. 276 | -,496" | -. 014 | 1 | -,324* | ,339* | -. 088 | -,586" | -,508" | -,579" |
|  | Sig. (2-tailed) | . 013 | . 000 | . 751 | . 000 | . 008 | . 902 | . 080 | . 001 | . 929 |  | . 039 | . 030 | . 590 | . 000 | . 001 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | -,630" | ,516" | ,761" | , $371{ }^{*}$ | -,623" | -,950" | ,998* | -,625* | ,715** | -,324* | 1 | -,970" | -. 215 | -,431" | -,552" | -,487" |
|  | Sig. (2-tailed) | . 000 | . 001 | . 000 | . 017 | . 000 | . 000 | . 000 | . 000 | . 000 | . 039 |  | . 000 | . 183 | . 005 | . 000 | . 001 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | ,626" | -,574" | -,755" | -,363* | ,618" | ,920" | -,968" | ,562" | -,734" | ,339* | -,970" | 1 | . 207 | ,349* | ,473" | ,422" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 020 | . 000 | . 000 | . 000 | . 000 | . 000 | . 030 | . 000 |  | . 200 | . 026 | . 002 | . 006 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | . 186 | -. 270 | -. 053 | -. 186 | . 187 | . 246 | -. 213 | . 258 | -. 123 | -. 088 | -. 215 | . 207 | 1 | . 278 | . 272 | . 271 |
|  | Sig. (2-tailed) | . 250 | . 092 | . 746 | . 251 | . 249 | . 126 | . 188 | . 108 | . 448 | . 590 | . 183 | . 200 |  | . 082 | . 089 | . 091 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | ,774" | . 207 | -,520" | -,744** | ,786" | ,622" | -,461" | ,903* | -,397* | -,586" | -,431" | ,349* | . 278 | 1 | ,975" | ,983" |
|  | Sig. (2-tailed) | . 000 | . 193 | . 000 | . 000 | . 000 | . 000 | . 002 | . 000 | . 010 | . 000 | . 005 | . 026 | . 082 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | ,817" | . 104 | -,671" | -,715" | ,828" | ,731" | -,585" | ,936" | -,553" | -,508" | -,552" | ,473" | . 272 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 000 | . 519 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 001 | . 000 | . 002 | . 089 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | ,811" | . 170 | -,563* | -,768* | ,826" | ,683" | -,517" | ,923* | -,448* | -,579* | -,487* | ,422* | . 271 | ,983" | ,966** | 1 |
|  | Sig. (2-tailed) | . 000 | . 288 | . 000 | . 000 | . 000 | . 000 | . 001 | . 000 | . 003 | . 000 | . 001 | . 006 | . 091 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| SI 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -. 304 | -,820" | -,795" | ,999** | ,751" | -,642" | ,874*** | -,848" | -. 055 | -,609" | ,686" | ,734" | ,816" | ,774" |
|  | Sig. (2-tailed) |  | . 102 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 772 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -. 304 | 1 | ,520" | -. 150 | -. 288 | -,692" | ,747* | -,411* | ,541" | -,663" | ,761" | -,783" | -,684" | -,659" | -,535" |
|  | Sig. (2-tailed) | . 102 |  | . 003 | . 429 | . 123 | . 000 | . 000 | . 024 | . 002 | . 000 | . 000 | . 000 | . 000 | . 000 | . 002 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | -,820" | ,520" | 1 | . 315 | -,812" | -,852" | ,820" | ,780" | ,970" | -. 341 | ,798" | -,851" | -,754** | -,905* | -,697" |
|  | Sig. (2-tailed) | . 000 | . 003 |  | . 090 | . 000 | . 000 | . 000 | . 000 | . 000 | . 065 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,795" | -. 150 | . 315 | 1 | -,805* | -. 311 | . 157 | ,619" | ,383* | ,508" | . 120 | -. 193 | -,374* | -,373* | -,518" |
|  | Sig. (2-tailed) | . 000 | . 429 | . 090 |  | . 000 | . 095 | . 408 | . 000 | . 037 | . 004 | . 526 | . 308 | . 042 | . 042 | . 003 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,999" | -. 288 | -,812" | -,805" | 1 | ,742" | -,630" | ,875" | -,840" | -. 077 | -,595** | ,674" | ,729" | ,810" | ,778" |
|  | Sig. (2-tailed) | . 000 | . 123 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 686 | . 001 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | ,751" | -,692" | -,852" | -. 311 | ,742" | 1 | -,980" | ,878" | -,826" | ,483" | -,970" | ,978" | ,850" | ,936" | ,783" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 095 | . 000 |  | . 000 | . 000 | . 000 | . 007 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | -,642" | ,747" | ,820" | . 157 | -,630" | -,980" | 1 | ,777" | ,788" | -,646" | ,998" | -,981" | -,790" | -,893" | -,691" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 408 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | ,874" | --411* | -,780" | -,619" | ,875** | ,878** | -,777" | 1 | -,770" | . 036 | -,748** | ,787* | ,800" | ,866" | ,816" |
|  | Sig. (2-tailed) | . 000 | . 024 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 849 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | -,848" | ,541" | ,970" | ,383 | -,840" | -,826" | ,788" | ,770" | 1 | -. 300 | ,764" | -,826" | -,758" | -,893" | -,710" |
|  | Sig. (2-tailed) | . 000 | . 002 | . 000 | . 037 | . 000 | . 000 | . 000 | . 000 |  | . 107 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -. 055 | -,663" | -. 341 | ,508" | -. 077 | ,483" | -,646" | . 036 | -. 300 | 1 | -,680" | ,580" | . 238 | . 344 | . 057 |
|  | Sig. (2-tailed) | . 772 | . 000 | . 065 | . 004 | . 686 | . 007 | . 000 | . 849 | . 107 |  | . 000 | . 001 | . 206 | . 062 | . 764 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | -,609" | ,761" | ,798" | . 120 | -,595* | -,970" | ,998" | ,748" | ,764" | -,680" | 1 | -,976" | -,774" | -,874" | -,668" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 526 | . 001 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | ,686" | -,783* | -,851" | -. 193 | ,674* | ,978" | -,981" | ,787" | -,826" | ,580" | -,976** | 1 | ,854* | ,932" | ,760" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 308 | . 000 | . 000 | . 000 | . 000 | . 000 | . 001 | . 000 |  | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | ,734" | -,684** | -,754* | -,374* | ,729** | ,850" | -,790" | ,800" | -,758" | . 238 | -,774** | ,854" | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | 000 | . 000 | . 000 | . 042 | . 000 | . 000 | . 000 | . 000 | . 000 | . 206 | . 000 | . 000 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | ,816" | -,659** | -,905* | -,373* | ,810** | ,936" | -,893" | ,866" | -,893" | . 344 | -,874** | ,932" | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 042 | . 000 | . 000 | . 000 | . 000 | . 000 | . 062 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | ,774" | -,535* | -,697* | -,518" | ,778* | ,783" | -,691" | ,816" | -,710" | . 057 | -,668" | ,760" | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 000 | . 002 | . 000 | . 003 | . 000 | . 000 | . 000 | . 000 | . 000 | . 764 | . 000 | . 000 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


| SK 2006Q2-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation | SK 2009Q1-2016Q2 | N | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L_E_area_Non_MFIs | 41 | 19725.0 | 45749.0 | 33763.780 | 6863.0448 | L_E_area_Non_MFIs | 30 | 30952.0 | 45749.0 | 36928.133 | 4562.9793 |
| L1 | 41 | 35.4021\% | 48.8994\% | 45.526440\% | 4.1508400\% | L1 | 30 | 46.8393\% | 48.8994\% | 47.938673\% | .6435015\% |
| L_EU_memb_Non_EMU_MFIs | 41 | 284.0 | 4016.0 | 1547.634 | 873.7488 | L_EU_memb_Non_EMU_MFIs | 30 | 881.0 | 4016.0 | 1888.967 | 764.6731 |
| L2 | 41 | .4163\% | 4.1269\% | 2.011116\% | .8815904\% | L2 | 30 | 1.2102\% | 4.1269\% | 2.394880\% | .6765582\% |
| L_EU_memb_Non_EMU_Non_MFIs | 41 | 278.0 | 1081.0 | 544.220 | 218.1244 | L_EU_memb_Non_EMU_Non_MFIs | 30 | 320.0 | 1081.0 | 599.533 | 225.8214 |
| L3 | 41 | .4415\% | 1.1316\% | .718926\% | .1919600\% | L3 | 30 | .4415\% | 1.1316\% | .758852\% | .2010376\% |
| L_Domestic_MFIs | 41 | 574.0 | 15680.0 | 4707.098 | 5357.3364 | L_Domestic_MFIs | 30 | 574.0 | 2586.0 | 1545.000 | 569.5224 |
| L4 | 41 | .6517\% | 27.3579\% | 7.140633\% | 8.6260916\% | L4 | 30 | .6517\% | 3.9095\% | 2.078642\% | .9325626\% |
| L_Domestic_Non_MFls | 41 | 19658.0 | 45069.0 | 33049.195 | 6512.9552 | L_Domestic_Non_MFIs | 30 | 30476.0 | 45069.0 | 36056.767 | 4318.3790 |
| L5 | 41 | 35.2819\% | 47.7911\% | 44.602885\% | 3.8090548\% | L5 | 30 | 46.0929\% | 47.7911\% | 46.828953\% | 4505857\% |
| Total loans (MFIs) | 41 | 1929.0 | 16456.0 | 6254.732 | 4840.2483 | Total loans (MFIs) | 30 | 1929.0 | 5765.0 | 3433.967 | 904.1502 |
| Total loans (non-MFIs) | 41 | 39661.0 | 91899.0 | 67357.195 | 13553.8581 | Total loans (non-MFIs) | 30 | 61869.0 | 91899.0 | 73584.433 | 9084.3020 |
| TOTAL LOANS | 41 | 53798.0 | 97313.0 | 73611.927 | 10704.8639 | TOTAL LOANS | 30 | 65398.0 | 97313.0 | 77018.400 | 9445.2172 |
| D_E_area_MFls | 41 | 1725.0 | 10202.0 | 4595.634 | 2529.6233 | D_E_area_MFls | 30 | 1725.0 | 5495.0 | 3281.633 | 1193.3903 |
| D1 | 41 | 1.8120\% | 12.4502\% | 5.588843\% | 3.3329639\% | D1 | 30 | 1.8120\% | 6.8538\% | 3.820967\% | 1.5947899\% |
| D_E_area_Non_MFls | 41 | 29650.0 | 49553.0 | 38888.951 | 5225.9024 | D_E_area_Non_MFls | 30 | 35315.0 | 49553.0 | 41030.767 | 4103.9650 |
| D2 | 41 | 40.2782\% | 48.2869\% | 45.378443\% | 2.3001215\% | D2 | 30 | 44.0738\% | 48.2869\% | 46.544974\% | 1.3316221\% |
| D_EU_memb_Non_EMU_MFIs | 41 | 241.0 | 2570.0 | 1184.707 | 663.6437 | D_EU_memb_Non_EMU_MFIs | 30 | 241.0 | 1852.0 | 852.967 | 403.0231 |
| D3 | 41 | .2775\% | 3.4912\% | 1.437272\% | .8954689\% | D3 | 30 | .2775\% | 2.2434\% | .979004\% | .4907068\% |
| D_EU_memb_Non_EMU_Non_MFls | 41 | 184.0 | 1573.0 | 534.024 | 365.6202 | D_EU_memb_Non_EMU_Non_MFls | 30 | 223.0 | 1573.0 | 639.967 | 374.6130 |
| D4 | 41 | .2500\% | 1.5153\% | .598674\% | . $3505770 \%$ | D4 | 30 | .2736\% | 1.5153\% | .702946\% | . $3551647 \%$ |
| D_Domestic_MFls | 41 | 576.0 | 3507.0 | 1789.390 | 823.5185 | D_Domestic_MFls | 30 | 576.0 | 3507.0 | 1733.100 | 925.5806 |
| D5 | 41 | .6400\% | 4.3244\% | 2.161485\% | 1.0746836\% | D5 | 30 | .6400\% | 4.3244\% | 2.030213\% | 1.1717436\% |
| D_Domestic_Non_MFls | 41 | 29535.0 | 48764.0 | 38416.366 | 5084.9420 | D_Domestic_Non_MFls | 30 | 34740.0 | 48764.0 | 40481.967 | 4050.7681 |
| D6 | 41 | 40.1220\% | 47.5918\% | 44.835284\% | 2.1757113\% | D6 | 30 | 43.3562\% | 47.5918\% | 45.921896\% | 1.3153619\% |
| Total deposits (MFIs) | 41 | 3127.0 | 14530.0 | 7569.732 | 3486.8851 | Total deposits (MFIs) | 30 | 3127.0 | 9928.0 | 5867.700 | 2187.0174 |
| Total deposits (non-MFIs) | 41 | 59419.0 | 99890.0 | 77839.341 | 10631.7267 | Total deposits (non-MFIs) | 30 | 70355.0 | 99890.0 | 82152.700 | 8500.3359 |
| TOTAL DEPOSITS | 41 | 70486.0 | 103807.0 | 85409.073 | 7975.3129 | TOTAL DEPOSITS | 30 | 79574.0 | 103807.0 | 88020.400 | 6848.6985 |
| LTD gap | 41 | -7953.0 | 4716.0 | -4227.415 | 2795.6433 | LTD gap | 30 | -7953.0 | -2093.0 | -5134.300 | 1464.0993 |
| LTD | 41 | . 8921942 | 1.0698988 | . 9453660 | . 0392443 | LTD | 30 | . 8923670 | . 9786474 | . 9359025 | . 0215442 |
| GLTDFq | 40 | -3.2872727 | 12.8750000 | 1.2035462 | 2.6075141 | GLTDFq | 30 | -3.2872727 | 12.8750000 | 1.3619204 | 2.8443364 |
| Valid N (listwise) | 40 |  |  |  |  | Valid N (listwise) | 30 |  |  |  |  |


| SK 2006Q2-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | GLTDFq | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | ,645" | ,383* | -,996" | ,996" | -,884" | ,870" | -,893" | ,495* | -. 273 | ,857" | -. 304 | . 136 | -,905" | -,873" | -,885* |
|  | Sig. (2-tailed) |  | . 000 | . 013 | . 000 | . 000 | . 000 | . 000 | . 000 | . 001 | . 084 | . 000 | . 053 | . 404 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L2 | Pearson Correlation | ,645" | 1 | ,551" | -,710" | ,646" | -,758" | ,723" | -,623" | ,730" | -,377* | ,722" | -. 146 | -. 017 | -,796" | -,812" | -,782" |
|  | Sig. (2-tailed) | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 015 | . 000 | . 361 | . 915 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L3 | Pearson Correlation | ,383* | ,551" | 1 | -,413" | ,340* | -,610" | ,651" | -,521" | ,836* | -,700" | ,672" | . 054 | . 084 | -,450" | -,581" | -,487" |
|  | Sig. (2-tailed) | . 013 | . 000 |  | . 007 | . 030 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 737 | . 606 | . 003 | . 000 | . 001 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L4 | Pearson Correlation | -,996** | -,710" | -,413** | 1 | -,995" | ,900" | -,881" | ,892** | -,536" | . 283 | -,868* | . 307 | -. 123 | ,925* | ,894" | ,905" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 007 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 073 | . 000 | . 051 | . 451 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| L5 | Pearson Correlation | ,996" | ,646" | ,340* | -,995" | 1 | -,868" | ,846" | -,876** | ,463* | -. 220 | ,831" | -,333* | . 132 | -,902** | -,857" | -,879" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 030 | . 000 |  | . 000 | . 000 | . 000 | . 002 | . 166 | . 000 | . 034 | . 418 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D1 | Pearson Correlation | -,884** | -,758* | -,610** | ,900" | -,868" | 1 | -,983" | ,817** | -,724* | ,549" | -,983** | ,381* | -. 185 | ,909" | ,926" | ,915" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 014 | . 252 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D2 | Pearson Correlation | ,870" | ,723" | ,651" | -,881" | ,846" | -,983" | 1 | -,828" | ,731" | -,654" | ,995" | -. 283 | . 215 | -,866" | -,905" | -,869" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 000 | . 000 | . 073 | . 183 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D3 | Pearson Correlation | -,893" | -,623" | -,521* | ,892" | -,876" | ,817" | -,828" | 1 | -,543* | . 279 | -,838" | . 272 | -. 052 | ,836" | ,817" | ,839" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 | . 078 | . 000 | . 085 | . 750 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D4 | Pearson Correlation | ,495" | ,730" | ,836" | -,536" | ,463" | -,724" | ,731" | -,543" | 1 | -,690" | ,739" | . 063 | . 128 | -,624" | -,729" | -,665" |
|  | Sig. (2-tailed) | . 001 | . 000 | . 000 | . 000 | . 002 | . 000 | . 000 | . 000 |  | . 000 | . 000 | . 694 | . 431 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D5 | Pearson Correlation | -. 273 | -,377* | -,700" | . 283 | -. 220 | ,549" | -,654" | . 279 | -,690" | 1 | -,648" | -. 217 | -. 275 | . 285 | ,442" | 296 |
|  | Sig. (2-tailed) | . 084 | . 015 | . 000 | . 073 | . 166 | . 000 | . 000 | . 078 | . 000 |  | . 000 | . 173 | . 086 | . 071 | . 004 | . 061 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| D6 | Pearson Correlation | ,857** | ,722* | ,672** | -,868" | ,831" | -,983" | ,995" | -,838** | ,739** | -,648" | 1 | -. 299 | . 201 | -,861" | -,899" | -,868" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 057 | . 213 | . 000 | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| LTD | Pearson Correlation | -. 304 | -. 146 | . 054 | . 307 | -,333* | ,381* | -. 283 | . 272 | . 063 | -. 217 | -. 299 | 1 | -. 074 | ,420" | ,310* | ,420" |
|  | Sig. (2-tailed) | . 053 | . 361 | . 737 | . 051 | . 034 | . 014 | . 073 | . 085 | . 694 | . 173 | . 057 |  | . 652 | . 006 | . 049 | . 006 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| GLTDFq | Pearson Correlation | . 136 | -. 017 | . 084 | -. 123 | . 132 | -. 185 | . 215 | -. 052 | . 128 | -. 275 | . 201 | -. 074 | 1 | -. 079 | -. 093 | -. 064 |
|  | Sig. (2-tailed) | . 404 | . 915 | . 606 | . 451 | . 418 | . 252 | . 183 | . 750 | . 431 | . 086 | . 213 | . 652 |  | . 630 | . 567 | . 694 |
|  | N | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| ECB_IR_Deposit | Pearson Correlation | -,905** | -,796** | -,450" | ,925" | -,902" | ,909" | -,866" | ,836** | -,624* | . 285 | -,861" | ,420" | -. 079 | 1 | ,975" | ,983** |
|  | Sig. (2-tailed) | . 000 | . 000 | . 003 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 071 | . 000 | . 006 | . 630 |  | . 000 | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| ECB_IR_Loans | Pearson Correlation | -,873" | -,812" | -,581" | ,894" | -,857" | ,926" | -,905" | ,817* | -,729" | ,442" | -,899" | ,310* | -. 093 | ,975" | 1 | ,966" |
|  | Sig. (2-tailed) | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 004 | . 000 | . 049 | . 567 | . 000 |  | . 000 |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |
| EURIBOR_3M | Pearson Correlation | -,885" | -,782" | -,487** | ,905" | -,879" | ,915* | -,869" | ,839" | -,665* | . 296 | -,868" | ,420" | -. 064 | ,983** | ,966" | 1 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 001 | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 | . 061 | . 000 | . 006 | . 694 | . 000 | . 000 |  |
|  | N | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 41 | 40 | 41 | 41 | 41 |


| SK 2009Q1-2016Q2 |  | L1 | L2 | L3 | L4 | L5 | D1 | D2 | D3 | D4 | D5 | D6 | LTD | ECB_IR_Deposit | ECB_IR_Loans | EURIBOR_3M |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | Pearson Correlation | 1 | -,493" | . 225 | -,762" | ,789" | -,370* | ,437* | -,422* | . 166 | -,384* | ,460* | . 095 | -. 164 | -. 247 | -. 269 |
|  | Sig. (2-tailed) |  | . 006 | . 232 | . 000 | . 000 | . 044 | . 016 | . 020 | . 382 | . 036 | . 011 | . 619 | . 385 | . 188 | . 151 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L2 | Pearson Correlation | -,493" | 1 | ,518" | -. 155 | -,707" | -,484" | ,392* | -. 033 | ,642" | -,418* | ,401* | ,542" | -,597** | -,562" | -,467" |
|  | Sig. (2-tailed) | . 006 |  | . 003 | . 413 | . 000 | . 007 | . 032 | . 863 | . 000 | . 022 | . 028 | . 002 | . 000 | . 001 | . 009 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L3 | Pearson Correlation | . 225 | ,518" | 1 | -,636* | -. 230 | -,797* | ,759" | -,479" | ,851" | -,718" | ,786" | ,550" | -,840" | -,884** | -,720" |
|  | Sig. (2-tailed) | . 232 | . 003 |  | . 000 | . 222 | . 000 | . 000 | . 007 | . 000 | . 000 | . 000 | . 002 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L4 | Pearson Correlation | -,762" | -. 155 | -,636* | 1 | -,465* | ,730" | -,734* | ,480" | -,669** | ,702" | -,766" | -,552" | ,605" | ,654" | ,618" |
|  | Sig. (2-tailed) | . 000 | . 413 | . 000 |  | . 010 | . 000 | . 000 | . 007 | . 000 | . 000 | . 000 | . 002 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| L5 | Pearson Correlation | ,789" | -,707* | -. 230 | -,465* | 1 | . 099 | -. 033 | -. 128 | -. 195 | . 044 | -. 025 | -. 052 | . 254 | . 238 | . 127 |
|  | Sig. (2-tailed) | . 000 | . 000 | . 222 | . 010 |  | . 603 | . 863 | . 500 | . 302 | . 819 | . 895 | . 786 | . 175 | . 206 | . 503 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D1 | Pearson Correlation | -,370 ${ }^{\circ}$ | -,484" | -,797* | ,730" | . 099 | 1 | -,982" | . 347 | -,782" | ,943* | -,977* | -,509" | ,696" | ,783* | ,629" |
|  | Sig. (2-tailed) | . 044 | . 007 | . 000 | . 000 | . 603 |  | . 000 | . 060 | . 000 | . 000 | . 000 | . 004 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D2 | Pearson Correlation | ,437* | ,392* | ,759" | -,734" | -. 033 | -,982** | 1 | -,393* | ,722" | -,962" | ,987" | ,450* | -,642" | -,741" | -,595" |
|  | Sig. (2-tailed) | . 016 | . 032 | . 000 | . 000 | . 863 | . 000 |  | . 032 | . 000 | . 000 | . 000 | . 013 | . 000 | . 000 | . 001 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D3 | Pearson Correlation | -,422* | -. 033 | -,479" | ,480" | -. 128 | . 347 | -,393* | 1 | -. 302 | . 189 | -,482" | . 062 | ,523" | ,365* | ,547" |
|  | Sig. (2-tailed) | . 020 | . 863 | . 007 | . 007 | . 500 | . 060 | . 032 |  | . 105 | . 318 | . 007 | . 745 | . 003 | . 048 | . 002 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D4 | Pearson Correlation | . 166 | ,642" | ,851" | -,669" | -. 195 | -,782" | ,722" | -. 302 | 1 | -,742" | ,722" | ,771" | -,845" | -,864** | -,760" |
|  | Sig. (2-tailed) | . 382 | . 000 | . 000 | . 000 | . 302 | . 000 | . 000 | . 105 |  | . 000 | . 000 | . 000 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D5 | Pearson Correlation | -,384* | -,418* | -,718" | ,702" | . 044 | ,943" | -,962" | . 189 | -,742" | 1 | -,931" | -,556" | ,580" | ,728" | ,506" |
|  | Sig. (2-tailed) | . 036 | . 022 | . 000 | . 000 | . 819 | . 000 | . 000 | . 318 | . 000 |  | . 000 | . 001 | . 001 | . 000 | . 004 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D6 | Pearson Correlation | ,460* | ,401* | ,786" | -,766" | -. 025 | -,977** | ,987* | -,482" | ,722" | -,931" | 1 | ,427* | -,677" | -,751" | -,609" |
|  | Sig. (2-tailed) | . 011 | . 028 | . 000 | . 000 | . 895 | . 000 | . 000 | . 007 | . 000 | . 000 |  | . 019 | . 000 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| LTD | Pearson Correlation | . 095 | ,542" | ,550" | -,552" | -. 052 | -,509" | ,450 | . 062 | ,771" | -,556" | ,427* | 1 | -,563" | -,653* | -,515* |
|  | Sig. (2-tailed) | . 619 | . 002 | . 002 | . 002 | . 786 | . 004 | . 013 | . 745 | . 000 | . 001 | . 019 |  | . 001 | . 000 | . 004 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Deposit | Pearson Correlation | -. 164 | -,597" | -,840" | ,605" | . 254 | ,696" | -,642" | ,523" | -,845* | ,580" | -,677" | -,563** | 1 | ,931" | ,919" |
|  | Sig. (2-tailed) | . 385 | . 000 | . 000 | . 000 | . 175 | . 000 | . 000 | . 003 | . 000 | . 001 | . 000 | . 001 |  | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| ECB_IR_Loans | Pearson Correlation | -. 247 | -,562" | -,884** | ,654* | . 238 | ,783" | -,741" | ,365* | -,864" | ,728" | -,751" | -,653** | ,931" | 1 | ,877" |
|  | Sig. (2-tailed) | . 188 | . 001 | . 000 | . 000 | . 206 | . 000 | . 000 | . 048 | . 000 | . 000 | . 000 | . 000 | . 000 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| EURIBOR_3M | Pearson Correlation | -. 269 | -,467" | -,720" | ,618* | . 127 | ,629" | -,595" | ,547" | -,760" | ,506" | -,609" | -,515* | ,919" | ,877" | 1 |
|  | Sig. (2-tailed) | . 151 | . 009 | . 000 | . 000 | . 503 | . 000 | . 001 | . 002 | . 000 | . 004 | . 000 | . 004 | . 000 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |


[^0]:    ${ }^{2}$ Monetary financial instituitions (MFIs) are central banks, resident credit institutions as defined in Community law, and other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credits and/or make investments in securities. Money market funds are also classified as MFIs (ECB, 2016).

[^1]:    ${ }^{3}$ The IS curve describes a relationship resulting between equilibrium aggregate output and the interest rate, and the LM curve describes the combinations of interest rates and aggregate output for which the quantity of money demanded equals the quantity of money supplied (Mishkin, 2004, p. 551).

[^2]:    ${ }^{4}$ Banks, insurance corporations and pension funds (ICPFs) and other finanancial instituitions (OFIs), also often called "shadow banking institutions".

[^3]:    5 The shadow banking sector comprises other financial institutions (OFIs), money market fund entities (MMFs), non-MMFs and financial vehicle corporations (FVCs).

[^4]:    ${ }^{6}$ Iceland, Lichtenstein, Norway \& Switzerland

[^5]:    ${ }^{7}$ A haircut is the difference between the market value of a security and the amount lent to the owner using the security as collateral, or an estimate of possible loss in investments (Collin, 2005, p.164).

[^6]:    ${ }^{8}$ NIBLs or non-interest bearing liabilities are non-dated liabilities that include cheque accounts and instantaccess deposit accounts (Choudhry, 2012, p. 362).

[^7]:    ${ }^{9}$ Prepayment itself creates runoff a problem which Saunders and Cornett (2008) define as periodic cash flow of interest and principal amortization payments on long-term assets, such as conventional mortgages, that can be reinvested at market rates.

[^8]:    ${ }^{10}$ Data from the ECB Monthly bulletin, February 2013

[^9]:    Source: Own calculation

