Note on the Quarterly Database

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1 Database

In this file, I describe the database used, and explain in more details the transformation made before using them into our model. If not mentioned, variables are introduce for the 11 original members countries of the eurozone + Greece + Sweden + UK + Denmark.

All the variables in the folders /IMF, /ECB and /OECD contain .csv file corresponding to original (raw) database. We transform the variables thanks to the .R file called "transformation". Then we save subsets from the complete database according to the model that we want to estimate.

1.1 ECB

These are the variables from ECB data warehouse originally in monthly frequency (I took the mean on each quarter) :

– HICP : ICP.M.COUNTRY.N.000000.4.INX
– Processed food exc. Alcohol and tobacco : ICP.M.COUNTRY.N.FDPXAT.4.INX
– Unprocessed food : ICP.M.COUNTRY.N.FOODUN.4.INX
– Indus good exc. Energy : ICP.M.COUNTRY.N.IGXE00.4.INX
– Energy : ICP.M.COUNTRY.N.NRGY00.4.INX
– Services : ICP.M.COUNTRY.N.SERV00.4.INX
– Unemployment : STS.M.COUNTRY.S.UNEH.RTT000.4.000

These variables are loaded directly from a file called ecbq.RData in the subfolder data/Quarterly/ECB. This file was built from the .R file used for the monthly frequency database. These variables are already transformed (log or /100), but not differentiated yet. The starting date is Q1 1990.

I also use in quarterly frequency :

– Compensation per employee : $MNA.Q.N.COUNTRY.W2.S1.S1._Z.COM_PS._Z._T._Z.IX.V.N$
– Exchange rate EUR/USD : EXR.Q.USD.EUR.SP00.A
– Nominal Effective Exchange Rate : EXR.Q.E1.EUR.ERC0.A
– GDP : $MNA.Q.N.COUNTRY.W2.S1.S1.B.B1GQ._Z._Z._Z.XDC.LR.N$
– Productivity : $MNA.Q.N.COUNTRY.W0.S1.S1._Z.LPR_PS._Z._T._Z.IX.LR.N$
– DowJones Euro Stoxx 50 index : FM.Q.U2.EUR.DS.EI.DJES50I.HSTA

These variables are in the folder Data/ECB and are raw variables directly loaded from the ECB database. These variables are transformed in the .R file called "traitementECB" located in the subfolder Data/ECB. (The transformation are describe in the following table)

Two databases are saved in the subfolder Data/ECB, one in level, the other one differentiated one time :

– dfecbq.Rdata
– difdfecbq.RData

The first one starts from Q1 1990, whereas the differentiated one starts from Q2 1990.

1.2 IMF

These are the variables from IMF (IFS) originaly in monthly frequency, but transformed into quarterly frequency :
- Commodity Prices, Crude Oil, Petroleum (World)
- London Interbank Offer Rate, 3-Month (US)
- Industrial Production
- Interest Rates, Monetary Policy-Related Interest Rate, FPOLM (Eurozone + US)
- Central Bank, Total Gross Assets (ECB + FED)

These are the variables from IMF (IFS) loaded in quarterly frequency :
- M1 (Eurozone)
- M3 (Eurozone)
- Producer Price, all comodities
- GDP deflator
- Interest Rates, Money Market Rate (FED + ECB)

These variable are in the folder Data/Quarterly/IMF and are raw variable directly loaded from the IFS database. These variables are transformed in the .R file called "traitementIMF" located in the subfolder Data/Quarterly/IMF. (The transformation are describe in the following table)

Two databases are saved in the subfolder Data/Quarterly/IMF, one in level, the other one differentiated one time :
- imf.Rdata
- difimf.RData

The first one starts from Q1 1990, whereas the differentiated one starts from Q2 1990.

1.3 OECD

These variable is in the folder /OECD and are raw variables directly loaded from the OECD database. These variables are transformed in the .R file called "traitementOECD" located in the subfolder Data/OECD. (The transformation are describe in the following table)

These are the variables from OECD :
- Short-term Interest rates (Monthly Monetary and Financial Statistics)
- Long-term Interest rates (Monthly Monetary and Financial Statistics)

In this file ("traitementOECD.R"), I also transform the monthly frequency database into quarterly frequency in order to add variable to the quarterly database when not available in quarterly frequency. This file is saved in the subfolder /Data/Quarterly/OECD under the name "oecdq.RData"

2 Recapitulative table

Table 1 – Database quarterly

Database								
Concept	Variables	Source	Frequency (original)	Frequency (transformed)	Adjustment	Country	Original	Transformation
Price	HICP	ECB	monthly	quarterly	NSA/NWD	by country	index	log
	Processed food exc. Alcohol and tobacco	ECB	monthly	quarterly	NSA/NWD	by country	index	log
	Unprocessed food	ECB	monthly	quarterly	NSA/NWD	by country	index	log
	Indus good exc. Energy	ECB	monthly	quarterly	NSA/NWD	by country	index	log
	Energy	ECB	monthly	quarterly	NSA/NWD	by country	index	log
	Services	ECB	monthly	quarterly	NSA/NWD	by country	index	log
	GDP deflator	IFS (IMF)	quarterly	quarterly	NSA/NWD	by country	index	log
	PPI (all commodities)	IFS (IMF)	quarterly	quarterly	NSA/NWD	by country (exc. Luxemburg)	index	log
	Oil Price	IFS (IMF)	monthly	quarterly	NSA/NWD	World	index	log
	Compensation per employee	ECB	quarterly	quarterly	NSA/NWD	EZ	index	log
Economic Activity	GDP (nominal)	ECB	quarterly	quarterly	NSA/NWD	by country	Millions EUR	log
	Productivity	ECB	quarterly	quarterly	NSA/NWD	by country	index	log
	Indus. Production	IFS (IMF)	monthly	quarterly	NSA	by country	index	log
	Unemployment rate	ECB	monthly	quarterly	SA/NWD	by country	%	/100
Interest rates	Short-term Interest rates	OECD	monthly	quarterly	NSA/NWD	by country	annual %	/100
	Long-term Interest rates	OECD	monthly	quarterly	NSA/NWD	by country	annual %	/100
	Interest Rates, Money Market Rate	IFS (IMF)	quarterly	quarterly	NSA/NWD	by country	annual %	/100
	LIBOR 3 month	IFS (IMF)	monthly	quarterly		US	annual %	/100
Monetary	M1	IFS (IMF)	quarterly	quarterly	NSA/NWD	EZ	EUR	$*10^{-6}$ + log
	M3	IFS (IMF)	quarterly	quarterly	NSA/NWD	EZ	EUR	$*10^{-6}$ + log
	Monetary Policy-Related Interest Rate	IFS (IMF)	monthly	quarterly	NSA/NWD	US/EZ	annual %	/100
	Central Bank Asset	IFS (IMF)	monthly	quarterly	NSA/NWD	US/EZ	USD/EUR	log
Other	NEER	ECB	quarterly	quarterly	NSA/NWD	EZ	index	log
	EUR/USD exchange rate	ECB	quarterly	quarterly	NSA/NWD	EZ	index	-
	DowJones Euro Stoxx 50	ECB	quarterly	quarterly	NSA/NWD	EZ	index	log