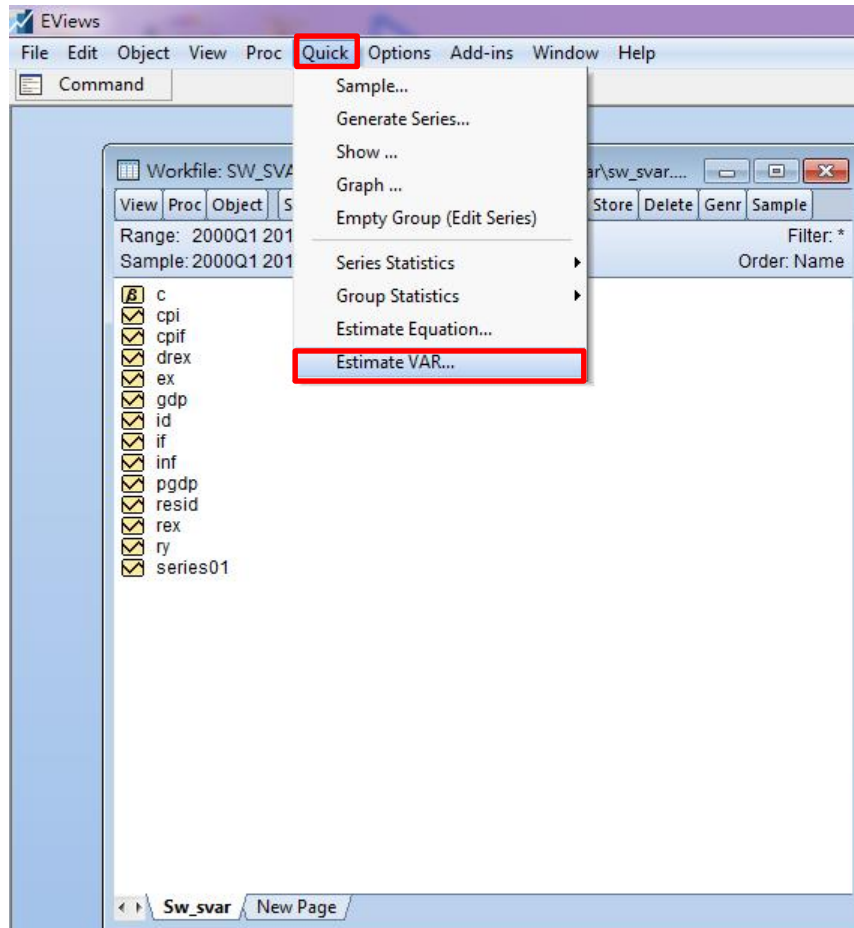


The operating steps of GIRF and GVDC

Step 1: “Quick” -> “estimate VAR”



Step 2 – input the variables (輸入變數)

EViews - [Workfile: DATA_EXAMPLE - (c:\users\user\desktop\data_example.wf1)]

File Edit Object View Proc Quick Options Add-ins Window Help

Command

View Proc Object Save Freeze Details+/- Show Fetch Store Delete Genr Sample

Range: 2000Q1 2017Q2 -- 70 obs

Sample: 2000Q1 2017Q2 -- 70 obs

☒ c
☒ cpi
☒ cpiif
☒ drex
☒ ex
☒ gdp
☒ id
☒ if
☒ inf
☒ pgdp
☒ resid
☒ rex
☒ ry
☒ series01

VAR Specification

Basics

VAR Type

- ☒ Unrestricted VAR
☐ Vector Error Correction
☐ Bayesian VAR

Estimation Sample

2000q1 2017q2

Endogenous Variables

if ry inf id drex

Lag Intervals for Endogenous:

1 1

Exogenous Variables

c

確定

取消

Step 3: “view” -> “impulse reponse”

The screenshot shows the EViews software interface. The main window displays a workfile named 'SW_SVAR' with a range of 2000Q1 to 2017Q2 and 70 observations. A list of variables is shown on the left, including 'c', 'cpi', 'cpif', 'drex', 'ex', 'gdp', 'id', 'if', 'inf', 'pgdp', 'resid', 'rex', 'ry', and 'series01'. A red arrow points from the 'view' menu in the top bar to the 'View' button in the 'Var: UNTITLED' window. Another red arrow points from the 'Impulse Response...' option in the 'View' menu to the same option in the 'Var: UNTITLED' window.

The 'Var: UNTITLED' window shows the 'View' menu with the following options:

- Representations
- Estimation Output
- Residuals
- Endogenous Table
- Endogenous Graph
- Lag Structure
- Residual Tests
- Cointegration Test...
- Impulse Response...
- Variance Decomposition...
- Label

The 'Impulse Response...' option is highlighted. The background window shows the 'Regression Estimates' table with columns for 'RY' and 'INF'.

	RY	INF
RY(-1)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-2)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-3)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-4)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-5)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-6)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-7)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-8)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-9)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-10)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-11)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-12)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-13)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-14)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-15)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-16)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-17)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-18)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-19)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-20)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-21)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-22)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-23)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-24)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-25)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-26)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-27)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-28)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-29)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-30)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-31)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-32)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-33)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-34)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-35)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-36)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-37)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-38)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-39)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-40)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-41)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-42)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-43)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-44)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-45)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-46)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-47)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-48)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-49)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-50)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-51)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-52)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-53)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-54)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-55)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-56)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-57)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-58)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-59)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-60)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-61)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-62)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-63)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-64)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-65)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-66)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-67)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-68)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-69)	-0.000309 (0.00210)	-0.002170 (0.00214)
RY(-70)	-0.000309 (0.00210)	-0.002170 (0.00214)

Step 4 – select “ Response Standard Errors” & select “Periods “

EViews - [Var: UNTITLED Workfile: DATA_EXAMPLE::Sw_svar]

File Edit Object View Proc Quick Options Add-ins Window Help

Command

View Proc Object Print Name Freeze Estimate Forecast Stats Impulse Resids Zoom

Vector Autoregression Estimates

Vector Autoregression Estimates

Date: 11/27/21 Time: 21:40

Sample (adjusted): 2000Q4 2016Q4

Included observations: 65 after adjustments

Standard errors in () & t-statistics in []

	IF	RY	INF		
IF(-1)	1.209296 (0.13381) [9.03728]	-0.000309 (0.00210) [-0.14678]	-0.002170 (0.00214) [-1.01623]		
IF(-2)	-0.120797 (0.15160) [-0.79681]	0.002464 (0.00238) [1.03327]	0.001781 (0.00242) [0.73628]		
RY(-1)	5.676302 (8.68169) [0.65382]	1.337193 (0.13655) [9.79282]	0.186328 (0.13854) [1.34498]		
RY(-2)	-8.235521 (8.77298) [-0.93874]	-0.360570 (0.13798) [-2.61313]	-0.193693 (0.13999) [-1.38360]		
INF(-1)	11.05179 (6.21486) [1.77828]	0.088361 (0.09775) [0.90396]	0.358078 (0.09917) [3.61069]		
INF(-2)	-7.650889 (6.34443) [-1.20592]	-0.037273 (0.09979) [-0.37353]	0.626647 (0.10124) [6.18976]	-0.31947	-1.11097
ID(-1)	-0.288691 (0.19714) [-1.46437]	0.001800 (0.00310) [0.58039]	0.007991 (0.00315) [2.54021]	0.872128 (0.14598) [5.97435]	-0.008394 (0.03655) [-0.22968]

Impulse Responses

Display Impulse Definition

Display Format

☐ Table

☒ Multiple Graphs

☐ Combined Graphs

Response Standard Errors

☒ None

☐ Analytic (asymptotic)

☐ Monte Carlo

Repetitions: 100

Display Information

Impulses:

id

Responses:

drex

Periods: 12

☐ Accumulated Responses

確定 取消

Step 5 – Impulse Definition -> Generalized Impulses

The screenshot shows the EViews software interface. The main window displays a workfile named 'SW_SVAR' with a range of 2000Q1 to 2017Q2 and 70 observations. A list of variables is shown on the left, including c, cpi, cpif, drex, ex, gdp, id, if, inf, pgdp, resid, rex, ry, and series01. A dialog box titled 'Impulse Responses' is open, showing the 'Impulse Definition' tab. The 'Decomposition Method' section has several radio buttons, with 'Generalized Impulses' selected and highlighted by a red box. A red arrow points from the 'Generalized Impulses' option to the 'Impulse Definition' tab. Another red arrow points from the top of the dialog box to the 'Impulse Responses' title bar. The 'Cholesky Ordering' section shows a list of variables: if, ry, inf, id, drex. At the bottom of the dialog box, there are buttons for '確定' (OK) and '取消' (Cancel). Below the dialog box, a table titled 'Variance Decomposition of INF:' is partially visible, showing columns for Period, S.E., IF, RY, INF, and ID.

Workfile: SW_SVAR - (c:\users\user\desktop\data\sva\sw_svar....)

Range: 2000Q1 2017Q2 -- 70 obs
Sample: 2000Q1 2017Q2 -- 70 obs

Filter: *
Order: Name

Variables: c, cpi, cpif, drex, ex, gdp, id, if, inf, pgdp, resid, rex, ry, series01

Var: UNTITLED Workfile: SW_SVAR::Sw_svar\

Impulse Responses

Display: Impulse Definition

Decomposition Method:

- ☐ Residual - one unit
- ☐ Residual - one std.deviation
- ☐ Cholesky - dof adjusted
- ☐ Cholesky - no dof adjustment
- ☒ Generalized Impulses
- ☐ Structural Decomposition
- ☐ User Specified

Cholesky Ordering:

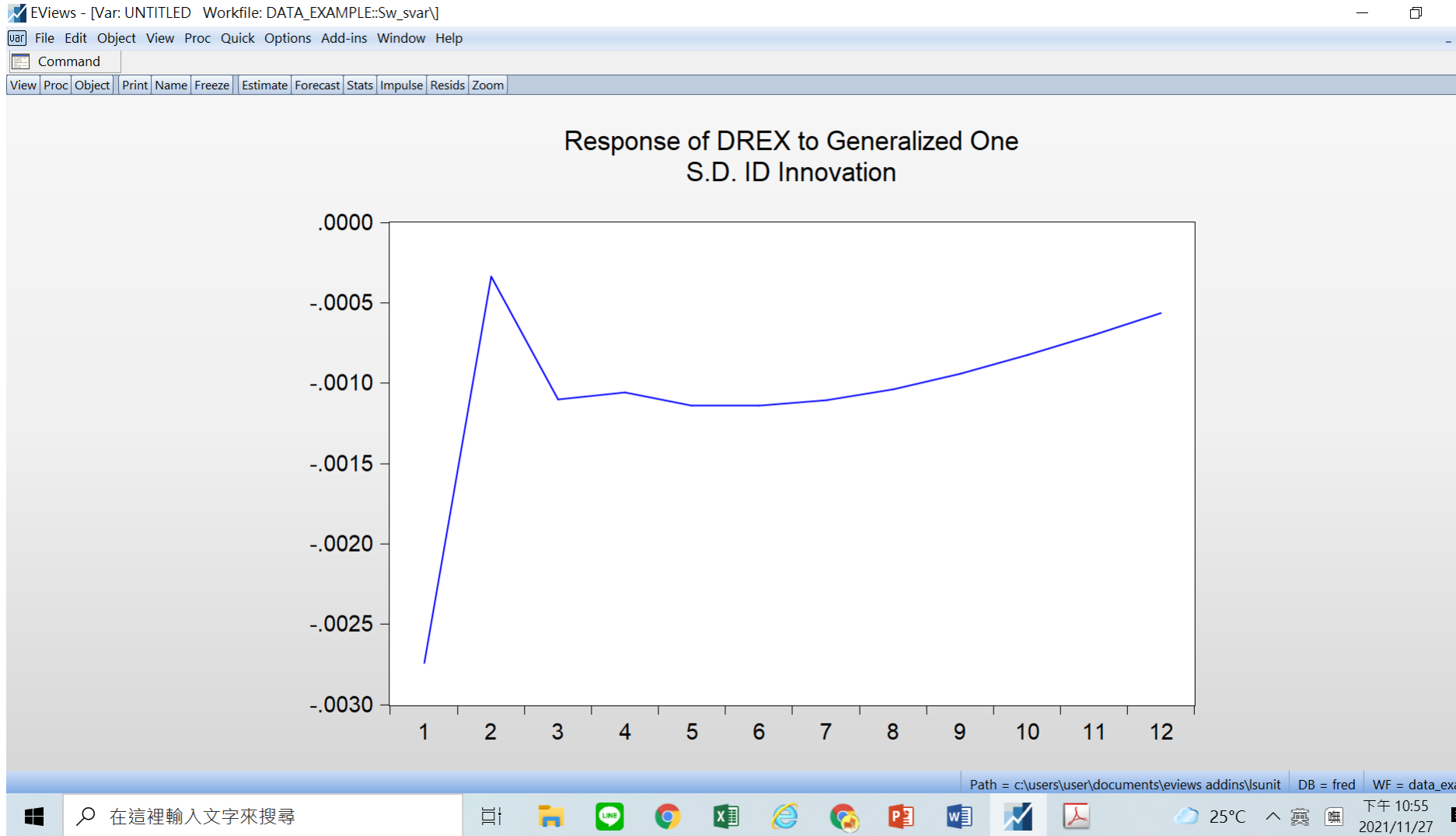
if ry inf id drex

確定 取消

Variance Decomposition of INF:

Period	S.E.	IF	RY	INF	ID
--------	------	----	----	-----	----

Step 6 – screen will show “the output” of GIRF



估計GVDC

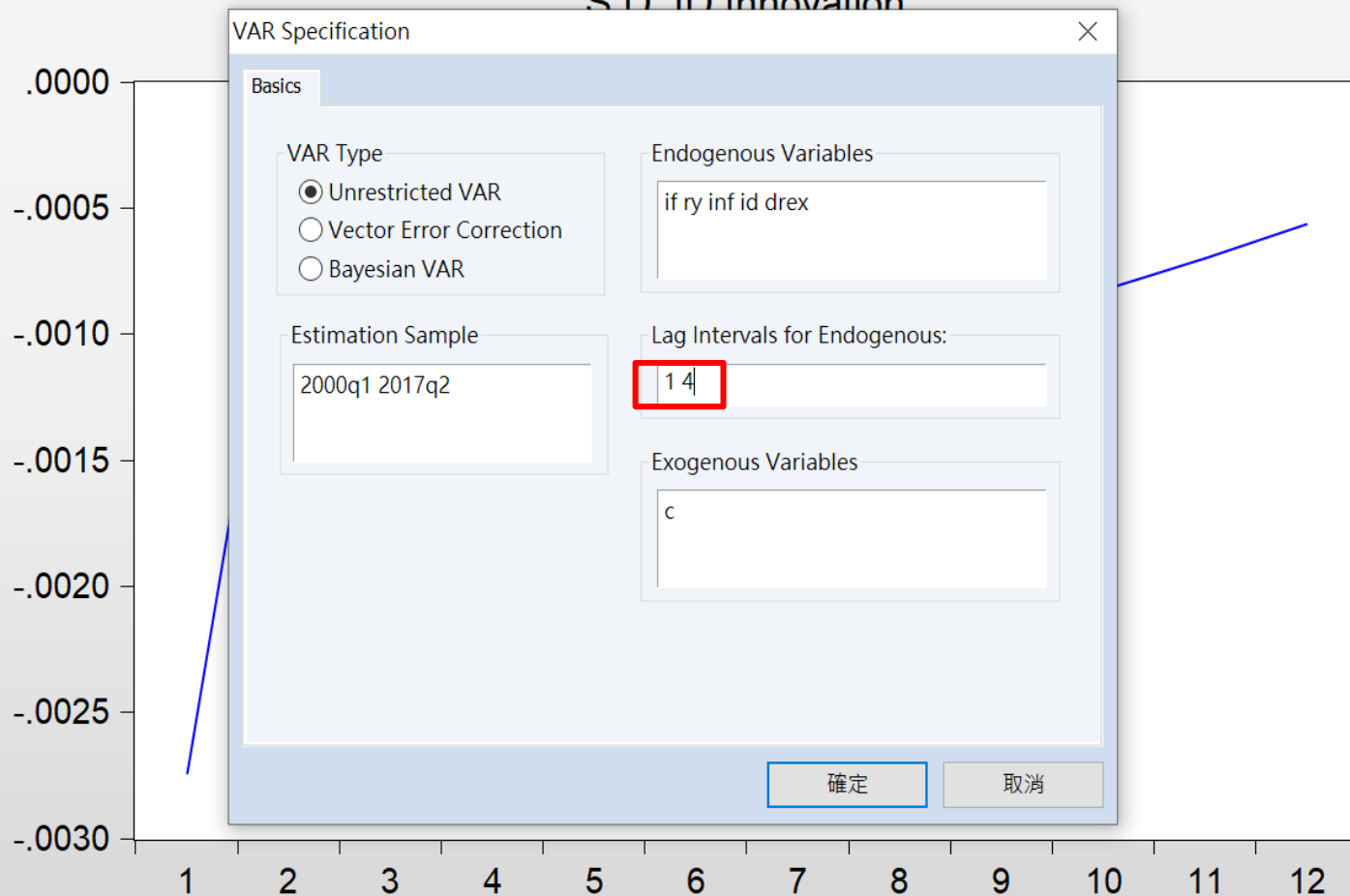
EViews - [Var: UNTITLED Workfile: DATA_EXAMPLE::Sw_svar\]

File Edit Object View Proc Quick Options Add-ins Window Help

Command

View Proc Object Print Name Freeze **Estimate** Forecast Stats Impulse Resids Zoom

Response of DREX to Generalized One S.D. ID Innovation



Step 1: “view” -> “Variance Decomposition”

The screenshot shows the EViews software interface. The main window is titled 'Workfile: SW_SVAR - (c:\users\user\desktop\data\sva\sw_svar...)'. The menu bar includes File, Edit, Object, View, Proc, Quick, Options, Add-ins, Window, and Help. The 'View' menu is open, showing options like Representations, Estimation Output, Residuals, Endogenous Table, Endogenous Graph, Lag Structure, Residual Tests, Cointegration Test..., Impulse Response..., Variance Decomposition..., and Label. The 'Variance Decomposition...' option is highlighted. A red arrow points from the 'view' text in the title to the 'View' menu, and another red arrow points from the 'Variance Decomposition...' option to the 'Variance Decomposition' text in the title.

Workfile: SW_SVAR - (c:\users\user\desktop\data\sva\sw_svar...)

View Proc Object Save Freeze Details+/- Show Fetch Store Delete Genr Sample

Range: 2000Q1 2007Q2 -- 70 obs Filter: *

Sample: 2000Q1 2007Q2 -- 70 obs Order: Name

Var: UNTITLED Workfile: SW_SVAR:sw_svar\

View Proc Object Print Name Freeze Estimate Forecast Stats Impulse Resids Z

Representations

Estimation Output

Residuals

Endogenous Table

Endogenous Graph

Lag Structure

Residual Tests

Cointegration Test...

Impulse Response...

Variance Decomposition...

Label

		RY	INF	
290	0.003114	-5.22E-05	0.0	
326	(0.00072)	(0.00087)	(0	
053	[4.31174]	[-0.05976]	[6	
052	0.986741	0.019896	-0.0	
350	(0.01530)	(0.01849)	(0	
148	[64.5024]	[1.07617]	[-1	
185	-0.024064	0.827067	-0.0	
(3.98165)	(0.06646)	(0.08032)	(3	
[0.43755]	[-0.36208]	[10.2973]	[-0	
ID(-1)	-0.492038	-0.003362	0.001924	0.0
	(0.07626)	(0.00127)	(0.00154)	(0
	[-6.45200]	[-2.64152]	[1.25064]	[1

Step 2 – select ” Display Format” &” Standard Errors” & select “Periods “

EViews - [Var: UNTITLED Workfile: DATA_EXAMPLE::Sw_svar\]

File Edit Object View Proc Quick Options Add-ins Window Help

Command

View Proc Object Print Name Freeze Estimate Forecast Stats Impulse Resids Zoom

Vector Autoregression Estimates

Vector Autoregression Estimates

Date: 11/27/21 Time: 23:08

Sample (adjusted): 2001Q2 2016Q4

Included observations: 63 after adjustments

Standard errors in () & t-statistics in []

	IF	RY	INF	ID	VAR Variance
IF(-1)	1.254579 (0.15030) [8.34695]	0.000222 (0.00224) [0.09920]	-0.001580 (0.00223) [-0.70810]	-0.057073 (0.10386) [-0.54949]	<div>Display Form</div> <div><input checked="" type="radio"/> Table</div> <div><input type="radio"/> Multiple C</div> <div><input type="radio"/> Combined</div> <div>Standard Error</div> <div><input checked="" type="radio"/> None</div> <div><input type="radio"/> Monte C</div> <div>Repetitions f</div> <div>Monte Carlo</div>
IF(-2)	-0.341024 (0.22842) [-1.49299]	0.000155 (0.00340) [0.04551]	-0.000261 (0.00339) [-0.07683]	0.097753 (0.15784) [0.61930]	
IF(-3)	0.436366 (0.22595) [1.93126]	0.001204 (0.00336) [0.35847]	0.003923 (0.00335) [1.16943]	0.221891 (0.15614) [1.42113]	
IF(-4)	-0.349673 (0.16377) [-2.13509]	0.000283 (0.00244) [0.11620]	-0.002107 (0.00243) [-0.86652]	-0.061350 (0.11317) [-0.54210]	
RY(-1)	8.407648 (10.3153) [0.81507]	1.262289 (0.15340) [8.22887]	0.065852 (0.15315) [0.42999]	-0.622559 (7.12818) [-0.08734]	
RY(-2)	-7.976755 (16.5996) [-0.48054]	-0.158453 (0.24685) [-0.64190]	0.063786 (0.24645) [0.25882]	0.690019 (11.4708) [0.06015]	1.707368 (3.10438) [0.54999]
RY(-3)	1.313416 (15.8710) [0.08276]	-0.346679 (0.23602) [-1.46888]	-0.025142 (0.23564) [-0.10670]	-2.372209 (10.9674) [-0.21630]	-1.934062 (2.96814) [-0.65161]
RY(-4)	-4.034283 (9.37045)	0.200548 (0.13935)	-0.133357 (0.13912)	-0.964228 (6.47525)	1.822765 (1.75242)

VAR Variance Decompositions

Display Format

☒ Table

☐ Multiple Graphs

☐ Combined Graphs

Standard Errors

☒ None

☐ Monte Carlo

Repetitions for Monte Carlo:

100

Display Information

Decompositions of:

if ry inf id drex

Periods: 12

Factorization

☒ Cholesky Decomposition

☐ Structural Decomposition

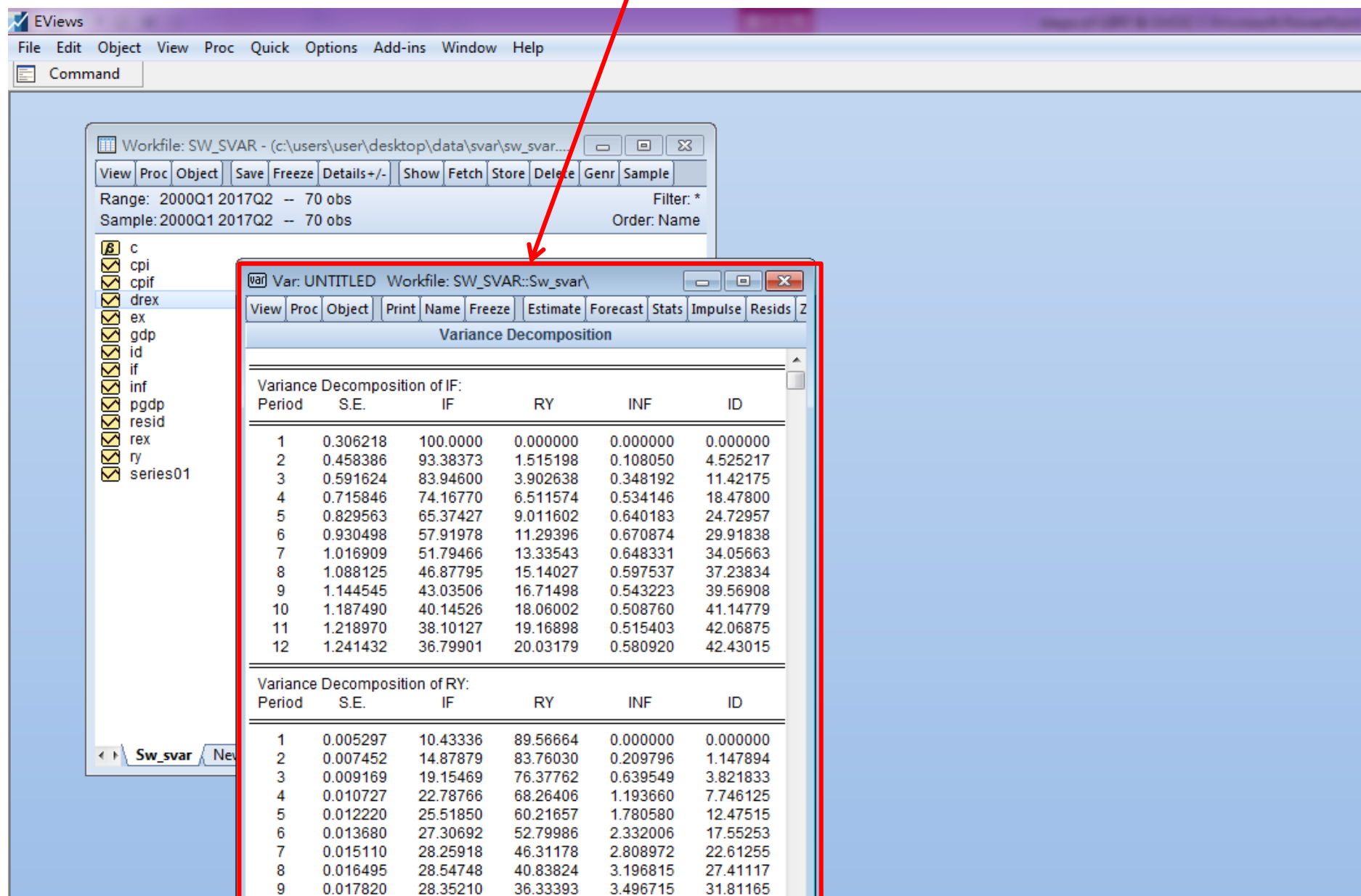
Ordering for Cholesky:

if ry inf id drex

OK

Cancel

Step 3 – screen will show “the output” of GVDC



The screenshot displays the EViews software interface. The main window shows the 'Workfile: SW_SVAR' with a range of 2000Q1 2017Q2 and 70 observations. A list of variables is visible on the left, including c, cpi, cpiif, drex, ex, gdp, id, if, inf, pgdp, resid, rex, ry, and series01. A secondary window titled 'Var: UNTITLED' is open, showing the 'Variance Decomposition' results. A red arrow points from the title bar of this window to the 'Estimate' button in the menu bar of the main window.

Variance Decomposition of IF:

Period	S.E.	IF	RY	INF	ID
1	0.306218	100.0000	0.000000	0.000000	0.000000
2	0.458386	93.38373	1.515198	0.108050	4.525217
3	0.591624	83.94600	3.902638	0.348192	11.42175
4	0.715846	74.16770	6.511574	0.534146	18.47800
5	0.829563	65.37427	9.011602	0.640183	24.72957
6	0.930498	57.91978	11.29396	0.670874	29.91838
7	1.016909	51.79466	13.33543	0.648331	34.05663
8	1.088125	46.87795	15.14027	0.597537	37.23834
9	1.144545	43.03506	16.71498	0.543223	39.56908
10	1.187490	40.14526	18.06002	0.508760	41.14779
11	1.218970	38.10127	19.16898	0.515403	42.06875
12	1.241432	36.79901	20.03179	0.580920	42.43015

Variance Decomposition of RY:

Period	S.E.	IF	RY	INF	ID
1	0.005297	10.43336	89.56664	0.000000	0.000000
2	0.007452	14.87879	83.76030	0.209796	1.147894
3	0.009169	19.15469	76.37762	0.639549	3.821833
4	0.010727	22.78766	68.26406	1.193660	7.746125
5	0.012220	25.51850	60.21657	1.780580	12.47515
6	0.013680	27.30692	52.79986	2.332006	17.55253
7	0.015110	28.25918	46.31178	2.808972	22.61255
8	0.016495	28.54748	40.83824	3.196815	27.41117
9	0.017820	28.35210	36.33393	3.496715	31.81165