Appendices

1.1 Results from Hardship Financing regression model diagnostic testing

Test type	Test Statistic Name	Value	P-value/	Conclusion
			critical value	
First Stage				
Underidentification	Kleibergen-Paap rank LM	102.54	0.0000	Not under-
	statistic			identified
	Sanderson-Windmeijer F	143.31	0.0000	Not under-
	test	Chi-sq		identified.
Weak identification	Cragg-Donald Wald F	109.86	Stock-Yogo	Strongly
	statistic		weak ID test	identified.
	Kleibergen-Paap Wald rank	71.50	critical values:	Strongly
	F statistic		10% maximal	identified.
			IV size $= 19.93$	
Weak instrument-	Anderson-Rubin Wald test	22.46	0.0000	Strong
robust inference		Chi-sq		instruments.
Second Stage				
Underidentification	Kleibergen-Paap rank LM	102.53	0.0000	Not
	statistic			underidentified
Weak identification	Cragg-Donald Wald F	109.86	Stock-Yogo	Strongly
	statistic		weak ID test	identified.
	Kleibergen-Paap rank Wald	71.50	critical values:	Strongly
	F statistic		10% maximal	identified.
			IV size $= 19.93$	
Overidentification	Hansen J statistic	1.771	0.1832	Not overidentified.
test of all				
instruments				
Endogeneity test	Difference of two Sargan-	17.34	0.0000	Total net income
	Hansen statistics			is endogenous.
Weak instrument	Finlay-Magnusson-Schaffer	18.98	0.000	Strong
robust test	Wald statistic			instruments.

1.2 Results from non-medical consumption expenditure regression model diagnostic testing

Test type	Test Statistic Name	Value	P-value/critical	Conclusion
			value	
First Stage				
Underidentification	Kleibergen-Paap rank LM	67.90	0.000	Not under-
	statistic			identified
	Sanderson-Windmeijer F	82.22	0.000	Not under-
	test	Chi-sq		identified.
Weak identification	Cragg-Donald Wald F	71.93	Stock-Yogo	Strongly
	statistic		weak ID test	identified.
	Kleibergen-Paap Wald rank	41.02	critical values:	Strongly
	F statistic		10% maximal	identified.
			IV size $= 19.93$	
Weak instrument-	Anderson-Rubin Wald test	37.52	0.000	Strong
robust inference		Chi-sq		instruments.
Second Stage	·			
Underidentification	Kleibergen-Paap rank LM	67.90	0.0000	Not
	statistic			underidentified
Weak identification	Cragg-Donald Wald F	71.93	Stock-Yogo	Strongly
	statistic		weak ID test	identified.
	Kleibergen-Paap rank Wald	41.02	critical values:	Strongly
	F statistic		10% maximal	identified.
			IV size $= 19.93$	
Overidentification	Hansen J statistic	0.128	0.7207	Not overidentified.
test of all				
instruments				
Endogeneity test	Difference of two Sargan-	26.436	0.000	Total net income
	Hansen statistics			is endogenous.
Weak instrument	Finlay-Magnusson-Schaffer	30.91	0.000	Strong
robust test	Wald statistic			instruments.

1.3 Results from non-food, non-medical expenditure regression model diagnostic testing

Test type	Test Statistic Name	Value	P-value/critical	Conclusion
			value	
First Stage				
Underidentification	Kleibergen-Paap rank LM	67.90	0.000	Not under-
	statistic			identified
	Sanderson-Windmeijer F	82.22	0.000	Not under-
	test	Chi-sq		identified.
Weak identification	Cragg-Donald Wald F	71.93	Stock-Yogo	Strongly
	statistic		weak ID test	identified.
	Kleibergen-Paap Wald rank	41.02	critical values:	Strongly
	F statistic		10% maximal	identified.
			IV size = 19.93	
Weak instrument-	Anderson-Rubin Wald test	41.95	0.000	Strong
robust inference		Chi-sq		instruments.
Second Stage				
Underidentification	Kleibergen-Paap rank LM	67.90	0.000	Not
	statistic			underidentified
Weak identification	Cragg-Donald Wald F	71.93	Stock-Yogo	Strongly
	statistic		weak ID test	identified.
	Kleibergen-Paap rank Wald	41.02	critical values:	Strongly
	F statistic		10% maximal	identified.
			IV size = 19.93	
Overidentification	Hansen J statistic	0.038	0.8448	Not overidentified.
test of all				
instruments				
Endogeneity test	Difference of two Sargan-	29.267	0.000	Total net income
	Hansen statistics			is endogenous.
Weak instrument	Finlay-Magnusson-Schaffer	35.81	0.000	Strong
robust test	Wald statistic			instruments.

1.4 Results from <u>food expenditure</u> regression model diagnostic testing

Test type	Test Statistic Name	Value	P-value/critical value	Conclusion
First Stage				
Underidentification	Kleibergen-Paap rank LM statistic	67.90	0.000	Not under- identified
	Sanderson-Windmeijer F test	82.22 Chi-sq	0.000	Not under-identified.
Weak identification	Kleibergen-Paap Wald rank F statistic	82.05	Stock-Yogo weak ID test critical values: 10% maximal IV size = 19.93	Strongly identified.
Weak instrument- robust inference	Anderson-Rubin Wald test	15.90 Chi-sq	0.0004	Strong instruments.
Second Stage				
Underidentification	Kleibergen-Paap rank LM statistic	67.90	0.0000	Not underidentified
Weak identification	Cragg-Donald Wald F statistic	71.93	Stock-Yogo weak ID test	Strongly identified.
	Kleibergen-Paap rank Wald F statistic	41.02	critical values: 10% maximal IV size = 19.93	Strongly identified.
Overidentification test of all instruments	Hansen J statistic	0.782	0.3764	Not overidentified.
Endogeneity test	Difference of two Sargan- Hansen statistics	10.840	0.0010	Total net income is endogenous.
Weak instrument robust test	Finlay-Magnusson-Schaffer Wald statistic	14.33	0.000	Strong instruments.