Appendix A: QUAIDS estimation model

Same as the LA/AIDS model, QUAIDS is derived as a generalization of the price-independent generalized logarithmic (PIGLOG) demand system with the indirect utility function

$$(1) \quad \ln V(\mathbf{p}, m) = \left[\left\{ \frac{\ln m - \ln a(\mathbf{p})}{b(\mathbf{p})} \right\}^{-1} + \lambda(\mathbf{p}) \right]^{-1},$$

where **p** is the vector of prices for a set of goods *i* with $i = 1,...,n$ for which the consumer has budgeted *m* units of currency.

The term $\frac{\ln m - \ln a(\mathbf{p})}{b(\mathbf{p})}$ is the indirect utility function of a system with budget shares linear in log total expenditure (PIGLOG demand system), indicating that (1) is clearly a generalization of the AIDS model (Lambert 2006: 178). Further, the price index $\ln a(\mathbf{p})$ is assumed to be a transcendental logarithm function, $b(\mathbf{p})$ is the Cobb-Douglas price aggregator, and $\lambda(\mathbf{p})$ is a differentiable, homogeneous function of prices with the following specifications:

$$(2) \quad \ln a(\mathbf{p}) = \alpha_0 + \sum_{i=1}^{n} \alpha_i \ln p_i + \frac{1}{2} \sum_{i=1}^{n} \sum_{j=1}^{n} \gamma_{ij} \ln p_i \ln p_j ,$$

$$(3) \quad b(\mathbf{p}) = \prod_{i=1}^{n} p_i^{\beta_i} ,$$

$$(4) \quad \lambda(\mathbf{p}) = \sum_{i=1}^{n} \lambda_i \ln p_i .$$

Given these specifications, the QUAIDS expenditure share equations for goods *i* are

$$(5) \quad w_i = \alpha_i + \sum_{j=1}^{n} \gamma_{ij} \ln p_j + \beta_i \ln \left\{ \frac{m}{a(\mathbf{p})} \right\} + \frac{\lambda_i}{b(\mathbf{p})} \left[\ln \left\{ \frac{m}{a(\mathbf{p})} \right\} \right]^2 .$$

To assure consistency with the neoclassical demand theory, the following additivity, homogeneity, and symmetry restrictions are required:

$$(6) \quad \sum_{i=1}^{n} \alpha_i = 1, \quad \sum_{i=1}^{n} \beta_i = 0, \quad \sum_{i=1}^{n} \lambda_i = 0, \quad \sum_{i=1}^{n} \gamma_{ij} = 0 \; \forall \; j ,$$

$$(7) \quad \sum_{j=1}^{n} \gamma_{ij} = 0, \quad \forall i ,$$

$$(8) \quad \gamma_{ij} = \gamma_{ji}, \quad \forall i \neq j .$$

Further, the price index $a(\mathbf{p})$ must be homogeneous of degree 1 in prices and expenditure, and $b(\mathbf{p})$ homogeneous of degree 0.

Demographic scaling used in this study is based on the works of Ray (1983) and Poi (2002, 2012). Let ***z*** represent a vector of characteristics *r* with $r = 1,...,s$ and $y^R(\mathbf{p},\mathbf{u})$ denote the expenditure function of a reference household, then the parameterized expenditure function for each household has the form

$$(9) \quad y(\mathbf{p},\mathbf{z},\mathbf{u}) = \left[1+\boldsymbol{\rho}'\mathbf{z}\right]\frac{\prod_{j=1}^{n} p_j^{\beta_j}\left[\prod_{j=1}^{n} p_j^{\boldsymbol{\eta}_j'\mathbf{z}} - 1\right]}{\frac{1}{u} - \sum_{j=1}^{n}\lambda_j \ln p_j} e^R(\mathbf{p},\mathbf{u}).$$

with $\boldsymbol{\rho}$ a vector of parameters to be estimated and η_j the *j*th column of the parameter matrix $\boldsymbol{\eta}$. Given equation (9) the expenditure share equation takes the form

$$(10) \quad w_i = \alpha_i + \sum_{j=1}^{n}\gamma_{ij}\ln p_j + [\beta_i + \boldsymbol{\eta}_i'\mathbf{z}]\ln\left\{\frac{m}{\overline{m}_0(\mathbf{z})\,a(\mathbf{p})}\right\} + \frac{\lambda_i}{b(\mathbf{p})c(\mathbf{p},\mathbf{z})}\left[\ln\left\{\frac{m}{\overline{m}_0(\mathbf{z})\,a(\mathbf{p})}\right\}\right]^2$$

with

$$(11) \quad \overline{m}_0(\mathbf{z}) = 1 + \boldsymbol{\rho}'\mathbf{z} \ ,$$

$$(12) \quad c(\mathbf{p},\mathbf{z}) = \prod_{j=1}^{n} p_j^{\boldsymbol{\eta}_j'\mathbf{z}} \ ,$$

and the additional adding up restriction requires

$$(13) \quad \sum_{j=1}^{n}\eta_{rj} = 0 \ \text{ for all r=1, …, s.}$$

As the elasticities are more easily interpreted and relevant for policy implications than the QUAIDS parameter estimates, expenditure elasticities are calculated by the differential of equation (10).

With the expenditure elasticity being $\eta_i = \frac{\left[\frac{\partial w_i}{\partial \ln m}\right]}{w_i} + 1$, we get

$$(14) \quad \eta_i = 1 + \frac{1}{w_i}\left[\beta_i + \boldsymbol{\eta}_i'\mathbf{z} + \frac{2\lambda_i}{b(\mathbf{p})c(\mathbf{p},\mathbf{z})}\ln\left\{\frac{m}{\overline{m}_0(\mathbf{z})\,a(\mathbf{p})}\right\}\right].$$

The uncompensated price elasticities $e_{ij}^u = \frac{\left[\frac{\partial w_i}{\partial \ln p_j}\right]}{w_i} - \delta_{ij}$, where δ_{ij} is the Kronecker delta with value of one for own-price elasticity and zero for cross-price elasticity, are given by

$$e_{ij}^{u} = -\delta_{ij} + \frac{1}{w_i}\left(\gamma_{ij} - \left[\beta_i + \boldsymbol{\eta}_i'\mathbf{z} + \frac{2\lambda_i}{b(\mathbf{p})c(\mathbf{p},\mathbf{z})}\ln\left\{\frac{m}{\overline{m}_0(\mathbf{z})a(\mathbf{p})}\right\}\right]\right)\times$$

(15)

$$\left(\alpha_j + \sum_k \gamma_{jk}\ln p_k\right) - \frac{\left(\beta_j + \boldsymbol{\eta}_j'\mathbf{z}\right)\lambda_i}{b(\mathbf{p})c(\mathbf{p},\mathbf{z})}\left[\ln\left\{\frac{m}{\overline{m}_0(\mathbf{z})a(\mathbf{p})}\right\}\right]^2.$$

In order to provide expenditure elasticities that are comparable with other studies, we calculate unconditional expenditure and price elasticities for each of the nine food aggregates by following the approach of Carpentier and Guyomard (2001: 226). With the conditional expenditure elasticity of commodity *i* conditional on the expenditure elasticity of the aggregate group F, being $\eta_{(F)i}$, we get the following unconditional expenditure elasticity for commodity *i*

(16) $\eta_i = \eta_{(F)i}\eta_F$.

Unconditional uncompensated price elasticity $\tilde{e}_{ij}^{u}$ calculated from the within uncompensated price elasticities e_{ij}^{u} for commodity *i* within aggregate group F and commodity *j* within aggregate groups H is given by

(17) $\tilde{e}_{ij}^{u} = e_{ij}^{u} + w_{(H)j}\left(\frac{\delta_{FH}}{\eta_{(H)j}} + e_{FH}\right)\eta_{(F)i}\eta_{(H)j} + w_{(H)j}w_H\eta_F\eta_{(F)j}\left(\eta_{(H)j} - 1\right),$

where $w_{(H)j}$ is the budget share of commodity *j* within aggregate group H. For the third stage meat aggregates, we follow the formula provided by Bouamra-Mechemache et al. (2008: 655) to calculate the unconditional elasticities from their conditional counterparts.

Appendix B: Urban and rural estimation results

Table 1: Chinese unconditional expenditure elasticities of urban settlement type

	1997	2000	2004	2006	2009
First stage OLS estimation					
Food	**0.63**	**0.65**	**0.67**	**0.71**	**0.61**
Second stage QUAIDS estimation					
Carbohydrates	**0.42**	**0.33**	**0.42**	**0.34**	**0.37**
Milk and dairy	**0.81**	**0.83**	**0.93**	**0.97**	**0.83**
Meat	**0.89**	**0.87**	**0.89**	**1.15**	**0.84**
Fish	**1.03**	**1.02**	**0.84**	**0.90**	**0.94**
Other proteins	**0.39**	**0.33**	**0.53**	**0.55**	**0.38**
Fruits			**0.52**	**0.64**	**0.49**
Vegetables	**0.48**	**0.48**	**0.49**	**0.55**	**0.44**
Fat and Oils	**0.83**	**0.88**	**0.71**	**0.75**	**0.59**
Other foods	**0.74**	**1.05**	**0.72**	**0.77**	**0.63**
Third stage QUAIDS estimation					
Beef	**0.78**	**0.84**	**0.90**	**1.07**	**0.87**
Pork	**0.97**	**0.89**	**0.87**	**0.97**	**0.69**
Mutton	**0.58**	**1.09**	**0.85**	**1.08**	**1.40**
Poultry	**0.57**	**0.59**	**0.61**	**0.62**	**0.55**
Total observations	*3173*	*3557*	*3334*	*3033*	*3064*
Share of urban households	*34 %*	*35%*	*35%*	*36%*	*38%*

Table 2: Chinese unconditional China expenditure elasticities of rural settlement type

	1997	2000	2004	2006	2009
First stage OLS estimation					
Food	**0.63**	**0.79**	**0.83**	**0.67**	**0.78**
Second stage QUAIDS estimation					
Carbohydrates	**0.52**	**0.57**	**0.64**	**0.44**	**0.57**
Milk and dairy	**0.97**	**1.09**	**1.26**	**0.98**	**1.16**
Meat	**1.03**	**1.17**	**1.22**	**1.29**	**1.08**
Fish	**0.79**	**1.83**	**1.43**	**0.84**	**1.39**
Other proteins	**0.41**	**0.52**	**0.69**	**0.54**	**0.53**
Fruits			**0.63**	**0.59**	**0.62**
Vegetables	**0.46**	**0.64**	**0.65**	**0.52**	**0.57**
Fat and Oils	**1.53**	**1.90**	**0.80**	**0.51**	**0.36**
Other foods	**0.67**	**1.14**	**0.88**	**0.77**	**0.82**
Third stage QUAIDS estimation					
Beef	**0.80**	**1.17**	**1.12**	**1.12**	**1.15**
Pork	**0.97**	**1.20**	**1.12**	**0.99**	**0.87**
Mutton	**0.55**	**1.58**	**1.12**	**1.23**	**2.08**
Poultry	**0.58**	**0.71**	**0.77**	**0.60**	**0.73**
Total observations	*3173*	*3557*	*3334*	*3033*	*3064*
Share of rural households	*66 %*	*66%*	*65%*	*64%*	*62%*

Table 3: Chinese unconditional own price elasticities of urban settlement type

	1997	2000	2004	2006	2009
First stage OLS estimation					
Food	**-0.55**	**-0.55**	**-0.71**	**-0.44**	**-0.71**
Second stage QUAIDS estimation					
Carbohydrates	**-0.20**	**-0.32**	**-0.26**	-0.03	**-0.23**
Milk and dairy	**-1.13**	**-1.03**	**-0.71**	**-0.77**	**-0.84**
Meat	**-0.54**	**-0.43**	-0.67	**-0.22**	**-0.33**
Fish	**-0.35**	**-0.33**	**-0.18**	**-0.19**	**-0.42**
Other proteins	**-0.48**	**-0.37**	-0.63	**-0.46**	**-0.67**
Fruits			**-0.52**	**-0.88**	**-0.33**
Vegetables	**-0.31**	-0.11	**-0.28**	**-0.18**	**-0.26**
Fat and Oils	**-0.18**	**-0.11**	**-0.03**	**-0.14**	**-0.27**
Other foods	-0.11	**-0.39**	**-0.45**	**-0.52**	**-0.55**
Third stage QUAIDS estimation					
Beef	**-1.25**	**-0.76**	**-1.27**	**-0.80**	**-0.38**
Pork	**-0.55**	**-0.14**	**-0.35**	**-0.23**	**-0.25**
Mutton	**-0.59**	**-1.52**	**-1.91**	-0.35	-0.90
Poultry	**-1.49**	**-0.50**	**-0.58**	**-0.78**	**-0.96**
Total observations	*3173*	*3557*	*3334*	*3033*	*3064*
Share of urban households	*34 %*	*35%*	*35%*	*36%*	*38%*

Table 4: Chinese unconditional own price elasticities of rural settlement type

	1997	2000	2004	2006	2009
First stage OLS estimation					
Food	**-0.64**	**-0.67**	**-0.66**	**-0.64**	**-0.59**
Second stage QUAIDS estimation					
Carbohydrates	**-0.41**	-0.19	**-0.40**	**-0.31**	**-0.39**
Milk and dairy	**-1.94**	**-1.62**	**-0.11**	-0.37	**-0.46**
Meat	**-0.67**	-0.53	**-0.75**	-0.18	**-0.30**
Fish	**-0.22**	**-0.13**	**-0.26**	-0.23	**-0.25**
Other proteins	-0.44	**-0.40**	**-0.60**	-0.48	**-0.66**
Fruits			**-0.74**	**-0.27**	**-0.36**
Vegetables	**-0.35**	**-0.23**	**-0.36**	**-0.23**	**-0.25**
Fat and Oils	**-0.06**	**-0.17**	-0.17	**-0.07**	**-0.39**
Other foods	**-0.19**	**-0.55**	**-0.48**	**-0.67**	**-0.57**
Third stage QUAIDS estimation					
Beef	**-1.34**	-0.60	**-1.35**	**-0.71**	-0.19
Pork	**-0.60**	**-0.04**	-0.31	**-0.15**	**-0.18**
Mutton	-0.50	**-1.95**	**-1.63**	-0.21	**-0.81**
Poultry	**-1.77**	**-0.91**	**-0.41**	**-0.73**	**-0.94**
Total observations	*3173*	*3557*	*3334*	*3033*	*3064*
Share of rural households	*66 %*	*66%*	*65%*	*64%*	*62%*

Table 5: Russian unconditional expenditure elasticities of urban settlement type

	1996	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008
First stage OLS estimation											
Food	**0.97**	**1.00**	**0.92**	**0.92**	**0.90**	**0.88**	**0.80**	**0.82**	**0.85**	**0.82**	**0.77**
Second stage QUAIDS estimation											
Carbohydrates	**0.66**	**0.59**	**0.77**	**0.72**	**0.67**	**0.66**	**0.56**	**0.52**	**0.66**	**0.45**	**0.42**
Milk and dairy	**0.82**	**0.69**	**0.91**	**0.87**	**0.79**	**0.75**	**0.67**	**0.71**	**0.75**	**0.82**	**0.80**
Meat	**1.15**	**1.26**	**1.01**	**1.14**	**1.13**	**1.07**	**1.04**	**1.07**	**0.95**	**1.03**	**0.93**
Fish	**1.29**	**1.45**	**1.01**	**0.96**	**1.09**	**0.97**	**0.98**	**0.99**	**0.90**	**0.95**	**0.90**
Other proteins	**1.28**	**1.32**	**1.09**	**0.91**	**0.83**	**0.86**	**0.84**	**0.84**	**0.83**	**0.86**	**0.83**
Fruits	**1.21**	**1.30**	**0.97**	**1.09**	**1.03**	**1.07**	**0.85**	**0.89**	**1.12**	**1.06**	**0.87**
Vegetables	**1.31**	**1.21**	**1.16**	**1.01**	**0.99**	**1.00**	**0.99**	**1.03**	**0.97**	**1.02**	**0.79**
Fats and oils	**0.96**	**1.39**	**1.03**	**0.78**	**0.74**	**0.74**	**0.64**	**0.64**	**0.80**	**0.52**	**0.66**
Other foods	**1.57**	**1.29**	**0.97**	**0.95**	**1.04**	**1.01**	**0.82**	**0.80**	**0.90**	**0.91**	**0.91**
Third stage QUAIDS estimation											
Beef	**1.46**	**1.69**	**1.47**	**1.65**	**1.62**	**1.60**	**1.44**	**1.82**	**1.48**	**1.54**	**1.60**
Pork	**1.18**	**1.06**	**0.84**	**1.01**	**1.12**	**0.93**	**0.97**	**0.97**	**0.88**	**0.95**	**0.87**
Poultry	**0.94**	**1.45**	**1.21**	**1.13**	**1.00**	**1.05**	**0.96**	**0.97**	**0.81**	**0.92**	**0.70**
Other meat	**0.91**	**1.05**	**0.87**	**1.05**	**0.88**	**0.99**	**0.96**	**0.84**	**0.89**	**0.91**	**0.83**
Total observations	*3397*	*3497*	*3723*	*4221*	*4371*	*4400*	*4412*	*4234*	*5119*	*5094*	*4956*
Share of urban households	*77%*	*77%*	*74%*	*76%*	*76%*	*76%*	*76%*	*75%*	*72%*	*76%*	*77%*

Table 6: Russian unconditional expenditure elasticities of rural settlement type

	1996	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008
First stage OLS estimation											
Food	**1.02**	**1.03**	**0.94**	**1.00**	**0.93**	**0.94**	**0.88**	**0.89**	**0.85**	**0.91**	**0.85**
Second stage QUAIDS estimation											
Carbohydrates	**0.72**	**0.80**	**0.82**	**0.88**	**0.76**	**0.78**	**0.77**	**0.78**	**0.74**	**0.71**	**0.63**
Milk and dairy	**0.83**	**0.36**	**0.80**	**0.73**	**0.63**	**0.61**	**0.48**	**0.51**	**0.50**	**0.67**	**0.72**
Meat	**1.24**	**1.47**	**1.10**	**1.33**	**1.29**	**1.23**	**1.20**	**1.17**	**0.99**	**1.17**	**1.07**
Fish	**1.40**	**1.70**	**1.17**	**1.15**	**1.21**	**1.21**	**1.10**	**1.15**	**0.95**	**1.11**	**1.12**
Other proteins	**1.38**	**1.77**	**1.28**	**0.84**	**0.76**	**0.84**	**0.80**	**0.78**	**0.78**	**0.86**	**0.86**
Fruits	**1.32**	**1.50**	**1.03**	**1.31**	**1.09**	**1.24**	**0.90**	**0.90**	**1.16**	**1.19**	**0.99**
Vegetables	**1.39**	**1.31**	**1.44**	**1.08**	**0.81**	**1.05**	**1.08**	**1.07**	**0.95**	**1.01**	**0.52**
Fats and oils	**1.08**	**1.63**	**1.16**	**1.07**	**1.09**	**1.07**	**0.94**	**0.96**	**0.96**	**0.83**	**0.92**
Other foods	**1.65**	**1.40**	**1.11**	**1.09**	**1.06**	**1.14**	**0.93**	**0.92**	**0.90**	**1.01**	**1.05**
Third stage QUAIDS estimation											
Beef	**1.51**	**2.39**	**2.13**	**2.74**	**2.34**	**2.45**	**2.40**	**2.56**	**1.94**	**2.24**	**2.10**
Pork	**1.30**	**1.27**	**0.87**	**1.10**	**1.18**	**1.10**	**1.03**	**1.01**	**0.94**	**1.06**	**0.99**
Poultry	**1.01**	**1.71**	**1.57**	**1.55**	**1.47**	**1.47**	**1.31**	**1.43**	**0.94**	**1.17**	**0.94**
Other meat	**0.94**	**0.52**	**0.75**	**1.11**	**0.62**	**0.95**	**1.17**	**0.77**	**0.89**	**0.95**	**1.02**
Total observations	*3397*	*3497*	*3723*	*4221*	*4371*	*4400*	*4412*	*4234*	*5119*	*5094*	*4956*
Share of rural households	*23%*	*23%*	*26%*	*24%*	*24%*	*24%*	*23%*	*25%*	*23%*	*24%*	*23%*

Table 7: Russian unconditional own price elasticities of urban settlement type

	1996	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008
First stage OLS estimation											
Food	**-0.73**	**-0.76**	**-0.64**	**-0.63**	**-0.60**	**-0.57**	**-0.51**	**-0.53**	**-0.53**	**-0.50**	**-0.45**
Second stage QUAIDS estimation											
Carbohydrates	**-1.02**	**-1.16**	**-1.08**	**-0.98**	**-1.11**	**-0.90**	**-0.81**	**-0.88**	**-1.08**	**-1.01**	**-0.94**
Milk and dairy	**-0.96**	**-1.20**	**-0.93**	**-0.81**	**-1.09**	**-0.87**	**-1.15**	**-0.96**	**-1.07**	**-0.95**	**-1.11**
Meat	**-1.42**	**-1.43**	**-1.46**	**-1.33**	**-1.28**	**-1.20**	**-1.43**	**-1.46**	**-1.41**	**-1.41**	**-1.02**
Fish	**-1.11**	**-0.85**	**-1.33**	**-1.59**	**-1.15**	**-0.82**	**-1.24**	**-1.14**	**-1.36**	**-1.24**	**-0.83**
Other proteins	**-0.62**	**-0.77**	**-0.49**	**-0.91**	**-0.73**	**-0.88**	**-0.76**	**-0.99**	**-0.90**	**-0.84**	**-0.62**
Fruits	**-1.26**	**-1.49**	**-1.28**	**-0.93**	**-0.99**	**-1.28**	**-0.91**	**-0.86**	**-0.95**	**-1.28**	**-1.01**
Vegetables	**-1.22**	**-1.10**	**-0.59**	**-1.07**	**-0.65**	**-0.92**	**-1.00**	**-1.13**	**-1.05**	**-1.27**	**-1.24**
Fats and oils	**-0.92**	**-1.80**	**-1.23**	**-1.00**	**-0.62**	**-0.97**	**-0.69**	**-0.96**	**-0.85**	**-1.03**	**-1.17**
Other foods	**-1.10**	**-1.07**	**-1.08**	**-1.20**	**-1.27**	**-1.33**	**-1.42**	**-1.22**	**-1.19**	**-1.11**	**-1.08**
Third stage QUAIDS estimation											
Beef	**-2.39**	**-1.85**	-0.44	**-1.44**	**-1.43**	**-1.51**	**-1.21**	**-1.44**	**-1.27**	**-1.18**	-0.68
Pork	**-1.89**	**-1.58**	**-2.32**	**-1.89**	**-1.58**	**-1.64**	**-1.76**	**-2.10**	**-1.96**	**-1.91**	**-1.96**
Poultry	**-1.74**	**-2.83**	**-2.31**	**-2.03**	**-1.73**	**-1.62**	**-1.68**	**-0.99**	**-1.28**	**-1.64**	**-0.97**
Other meat	**-1.54**	**-2.13**	**-1.83**	**-1.93**	**-1.66**	**-1.39**	**-1.26**	**-1.34**	**-1.63**	**-1.70**	**-1.85**
Total observations	*3397*	*3497*	*3723*	*4221*	*4371*	*4400*	*4412*	*4234*	*5119*	*5094*	*4956*
Share of urban households	*77%*	*77%*	*74%*	*76%*	*76%*	*76%*	*76%*	*75%*	*72%*	*76%*	*77%*

Table 8: Russian unconditional own price elasticities of rural settlement type

	1996	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008
First stage OLS estimation											
Food	**-0.68**	**-0.70**	**-0.62**	**-0.67**	**-0.60**	**-0.61**	**-0.57**	**-0.57**	**-0.54**	**-0.57**	**-0.52**
Second stage QUAIDS estimation											
Carbohydrates	**-1.22**	**-1.34**	**-1.40**	**-1.34**	**-1.32**	**-1.25**	**-1.17**	**-1.22**	**-1.31**	**-1.21**	**-1.13**
Milk and dairy	**-0.95**	**-1.67**	**-0.74**	-0.48	**-1.19**	**-0.77**	**-1.29**	**-0.89**	**-1.05**	**-0.83**	**-1.08**
Meat	**-1.52**	**-1.47**	**-1.79**	**-1.35**	**-1.25**	**-1.15**	**-1.47**	**-1.48**	**-1.49**	**-1.45**	**-1.00**
Fish	**-1.13**	**-0.77**	**-1.37**	**-1.70**	**-1.17**	**-0.81**	**-1.25**	**-1.15**	**-1.36**	**-1.24**	**-0.87**
Other proteins	0.69	-0.10	0.52	**-0.73**	-0.45	**-0.74**	-0.42	**-0.97**	**-0.83**	**-0.73**	-0.31
Fruits	**-1.53**	**-1.98**	**-1.54**	**-0.85**	**-0.96**	**-1.48**	**-0.82**	**-0.76**	**-0.89**	**-1.34**	**-1.00**
Vegetables	**-1.45**	**-1.32**	0.21	**-1.15**	0.11	**-0.74**	**-0.96**	**-1.21**	**-1.07**	**-1.57**	**-1.54**
Fats and oils	**-0.97**	**-1.90**	**-1.24**	**-1.06**	**-0.80**	**-1.04**	**-0.85**	**-1.03**	**-0.95**	**-1.06**	**-1.16**
Other foods	**-1.12**	**-1.09**	**-1.10**	**-1.20**	**-1.25**	**-1.33**	**-1.44**	**-1.23**	**-1.20**	**-1.12**	**-1.09**
Third stage QUAIDS estimation											
Beef	**-2.48**	**-2.21**	-0.85	**-1.89**	**-1.66**	**-1.92**	**-1.56**	**-1.74**	**-1.29**	**-1.38**	-0.67
Pork	**-1.98**	**-1.59**	**-2.14**	**-1.69**	**-1.52**	**-1.58**	**-1.56**	**-1.88**	**-1.93**	**-1.78**	**-1.76**
Poultry	**-1.83**	**-3.51**	**-3.27**	**-2.49**	**-2.26**	**-2.00**	**-2.12**	**-1.24**	**-1.47**	**-1.99**	**-1.15**
Other meat	**-1.73**	**-2.67**	**-1.98**	**-2.01**	**-1.82**	**-1.46**	**-1.34**	**-1.33**	**-1.74**	**-1.89**	**-2.20**
Total observations	*3397*	*3497*	*3723*	*4221*	*4371*	*4400*	*4412*	*4234*	*5119*	*5094*	*4956*
Share of rural households	*23%*	*23%*	*26%*	*24%*	*24%*	*24%*	*23%*	*25%*	*23%*	*24%*	*23%*

Table 9: Expenditure elasticity comparisons with other studies for China and Russia

Commodity	Expenditure Elasticities – China									
	Huang and Rozelle (1993,1994)	Gould (1995-1997)	Yen et al. (2000)	Dong and Gould (2001)	Gould and Villarreal (2001)	Gale and Huang (2002-2003)	Liao and Chern (2002-2003)	Hovhannisyan and Gould (2003)	Zheng and Henneberry (2004)	Zhou et al. (1995-2010)
Grains	0.51	1.3	0.82	0.97	1.16	0.06	0.54	0.40	0.79	0.15
Oils and Fats			0.98	1.22	1.34	0.23	0.78		0.72	0.59
Meats	0.85						1.34		1.04	0.55
Pork		1.16	0.94	1.28	1.2	0.24		1.14		
Dairy/egg		1.36								
Dairy			1.19	1.19	1	0.7		1.74	1.37	1.69
Egg			1.04					0.29	0.82	-0.11
Vegetables	1.4	1.03	0.83	0.95	0.95		0.74	0.60	0.81	0.74
Fruits	2.32	1.07	0.6	0.72	0.85	0.35	1.07	1.35	0.98	1.14

Commodity	Expenditure Elasticities – Russia		
	Elsner (1996)	Goodwin et al. (1996)	Staudigel and Schröck (1995-2010)
Grains			0.86
Oils and Fats	0.91		0.86
Meats	0.77		1.16
Beef	1.06	1.01	
Pork	0.72	1.16	
Poultry	0.67	0.83	
Processed meat	0.48	0.28	
Dairy/eggs	1.10		
Dairy			0.80
Eggs	0.64	1.62	
Vegetables	1.40		0.97
Fruits	1.05		0.97

Note: The years in parentheses are the years of data used.

Table 10: Own-price elasticity comparisons with other studies for in China and Russia

Commodity	Own-Price Elasticities for China								
	Huang and Rozelle (1993, 1994)	Gould (1995-1997)	Yen et al. (2000)	Dong and Gould (2001)	Gould and Villarreal (2001)	Liao and Chern (2002-2003)	Hovhannisyan and Gould (2003)	Zheng and Henneberry (2004)	Zhou et al. (1995-2010)
Grains	-0.57	-0.91	-0.9	-0.60	-0.64	-0.73	-1.16	-1.22	-0.62
Oils and Fats			-0.55	-0.71	-0.75	-1.08	-1.09	-1.31	-0.35
Meats	-0.74							-0.85	-0.62
Pork		-1.44	-0.21	-0.58	-0.66	-0.82	-0.89		
Dairy/egg		-1.15							
Dairy			-1.4	-0.41	-0.39		-1.04	-1.21	-0.45
Egg			-0.7				-0.80	-0.85	-0.53
Vegetables	-0.82	-1.38	-0.72	-0.68	-0.66	-0.62	-0.46	-0.5	-0.77
Fruits	-0.54	-1.21	-0.76	-0.70	-0.71	-0.69	-0.70	-0.86	-0.84

Commodity	Own-Price Elasticities for Russia		
	Elsner (1996)	Goodwin et al. (1996)	Staudigel and Schroeck (1995-2010)
Grains			-1.27
Oils and Fats	-1.11		-0.99
Meats	-0.73		-0.88
Beef	-1.02	-0.41	
Pork	-0.88	-0.17	
Poultry	-0.79	-0.33	
Processed meat	-0.93	-0.08	
Dairy/egg	-0.95		
Dairy			-0.97
Egg	-0.59	-0.37	
Fish		-0.32	
Vegetables	-1.04		-1.05
Fruits	-0.91		-0.91

Note: The years in parentheses are the years of data used.