



Per Capita Income and the Quality and Variety of Imports

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Introduction

- Gravity model predicts that trade flows increase in aggregate income, regardless of how it is divided into per capita income and population
- We show (data and theory) that for margins of imports it matters how aggregate GDP is divided into per capita GDP and population
- Existing empirical evidence
 - for a positive relationship between extensive margin and per capita income, also for quality margin, Baldwin & Harrigan (2007), Choi et al. (2009)
 - ⇒ “unifying analysis”, all three margins, several specifications
- Existing theoretical models
 - standard trade models have little to say
 - two separate strands on effect of per capita income on extensive margin and on quality of imports, Foellmi et al. (2010), Fajgelbaum et al. (2011)
 - ⇒ “unifying framework”, extensive and quality margin are *jointly* determined

The Data

- 6-digit UN COMTRADE data, yearly bilateral trade flows in 5'017 product categories for 123 countries, 1995-2007
- 1'263 categories with consumer goods (BEC)
e.g. automobiles (diesel, <1500cc), refrigerator, table knives, sunglasses, whiskies
- Income data: Penn World Tables 6.3, real PPP GDP
- Controls: several sources

Import Margins and Model

Import Margins

($V_{\text{GER,CHE,cars}} = 647$ million US\$, $V_{\text{CHE,cars}} = 236$ million US\$, $1_{\text{CHE,cars}} = 1$)

$$V_{ci} = UV_{ci} \cdot X_{ci}$$

$$Y_{ci} = \prod_{n \in N_{-c}} (y_{nci})^{w_{nci}}, \quad 1_{ci} = \begin{cases} 1 & \text{if } \sum_{n \in N_{-c}} v_{nci} > 0 \\ 0 & \text{if } \sum_{n \in N_{-c}} v_{nci} = 0 \end{cases}$$

Hypothesis

For a given aggregate GDP there is a separate role of GDP per capita for the determination of imports.

Model, $Y \in \{UV, X\}$

$$1_{ci} = \alpha + \beta_1 \ln(\text{GDP}_c) + \beta_2 \ln(\text{GDPpc}_c) + x'_{c\gamma} + \tau'_c \delta + r_{ci} \chi + A_i + \epsilon_{ci}$$

$$\ln(Y_{ci}) = \alpha + \beta_1 \ln(\text{GDP}_c) + \beta_2 \ln(\text{GDPpc}_c) + x'_{c\gamma} + \tau'_c \delta + r_{ci} \chi + A_i + \epsilon_{ci}$$

Results

Disaggregated multilateral import margins Y_{ci} , consumer goods

	1_{ci}	$\ln(UV_{ci})$	$\ln(X_{ci})$
Mean	0.794	2.217	3.079
Standard deviation	0.404	1.585	2.952
$\ln(\text{GDP})$	0.044*** (0.008)	-0.002 (0.012)	0.466*** (0.047)
$\ln(\text{GDPpc})$	0.049*** (0.011)	0.085*** (0.020)	0.328*** (0.088)
# observations	155,349	123,367	123,367
# regressors	1282	1276	1276
Adjusted R ²	0.411	0.841	0.665

Notes: ***, **, * denote statistical significance on the 1%, 5%, and 10% level, respectively. Robust standard errors (clustered by importer) are given in parentheses. Controls x_c : region dummies, belonging to OECD, $\ln(\text{PPP})$. Controls τ_c : dummies for island, landlocked, WTO, # of FTA's, # of CU's, # of neighbor countries, # of countries with common language, average distance. Controls r_{ci} : remoteness index $r_{ci} = \left(\sum_{n \in N} 1(v_{ni} > 0) \right)^{-1} \sum_{n \in N_{-c}} \text{distance}_{nc} \cdot (v_{ni} / v_i)$. HS6 code fixed effects. Year=2007.

Summary of Results

Disaggregated multilateral import margins Y_{ci}

- CHE and COL have same GDP, CHE – country with higher GDPpc – has a higher probability to import any product category (1_{ci}) and CHE imports cars with higher unit values (UV_{ci}) and CHE imports more units of cars (X_{ci}) than COL
- very robust
straightforward import margins, durables, OECD/ nonOECD sample, year (1995- 2007), level of disaggregation, controlling for exporter region ($x_{n_{ci}}$), probit or logit for 1_{ci}
- similar and robust results for Y_{nc} and Y_c

The Model

Environment

- Krugman (1980) & quality & non-homothetic preferences
- a continuum of differentiated goods $j \in [0, N]$
- continuous quality levels for the differentiated goods
- an economy with L households, each has A units of labor
- two countries, R and P , they differ only in L and A
 $A_R L_R = A_P L_P$, $A_R > A_P$ and $L_R < L_P$
- no price discrimination, no trade costs

Households

$$\max_{d_i(j), q_i(j)} U_i = \int_{j=0}^N d_i(j) q_i(j) dj \quad \text{s.t.} \quad A_i w = \int_{j=0}^N d_i(j) p(j, q_i) dj$$

$$\{d_i(j), q_i(j)\} = \begin{cases} \{1, q_i(j)\} & \text{if } \mu_i q_i(j) - p(j, q_i) \geq \max [0, \mu_i q_{-i}(j) - p(j, q_{-i})] \\ \{0, \cdot\} & \text{otherwise} \end{cases}$$

$d_i(j)$: indicator function

$p(j, q_i)$: price of variety j in quality $q_i(j)$

μ_i : inverse of Lagrange multiplier of the BC, WTP for 1 unit of quality

Firms

- technology
 - ϕ units of labor to set up production of a variety j
 - $\psi(q(j))/N$ units of labor to produce one unit of j , $\psi(\cdot)$ convex
 - a firm can produce any quality level, also simultaneously
- strategy
 - a firm faces two types of customers (2 RC's, 2 ICC's)
 - optimal prices and qualities for a firm which sells to both types

$$p_P = \mu_P q_P = WTP_P$$

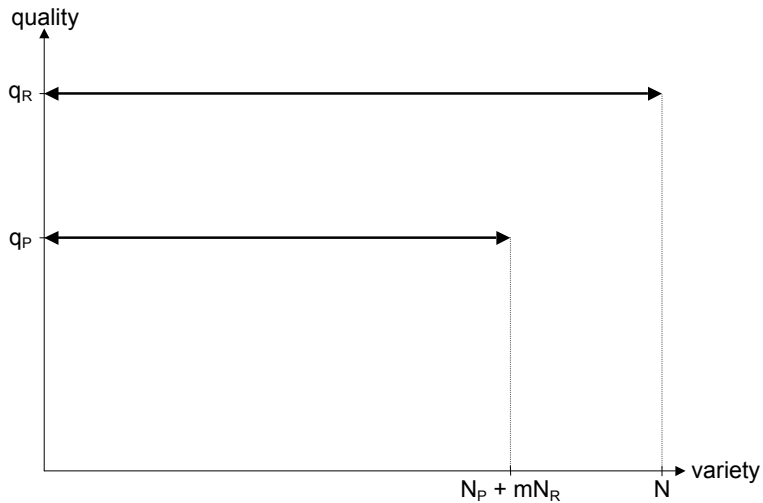
$$p_R < \mu_R q_R = WTP_R$$

$$\mu_R = \psi'(q_R)$$

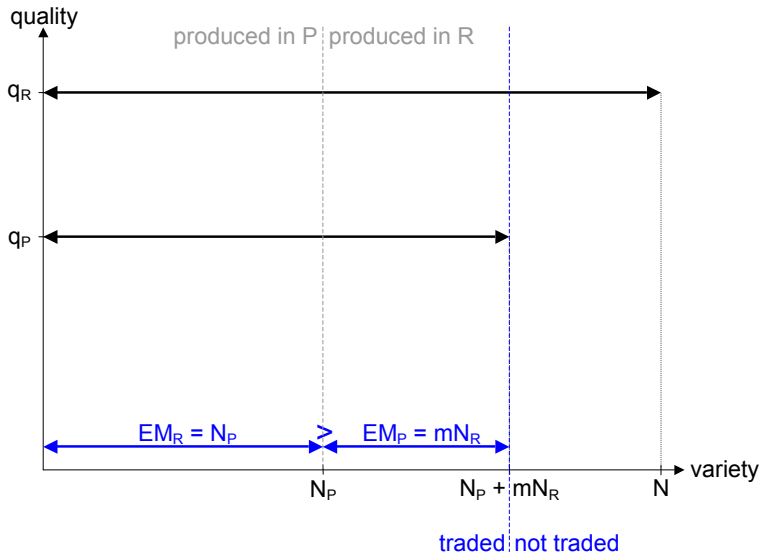
$$\mu_P - (\mu_R - \mu_P) \cdot L_R/L_P = \psi'(q_P) \quad \forall j_{all}$$

- a firm can sell exclusively to R and charge full WTP_R
- equilibrium
 - both types of firms in equilibrium
 - zero profits, labor market clearing, balanced trade

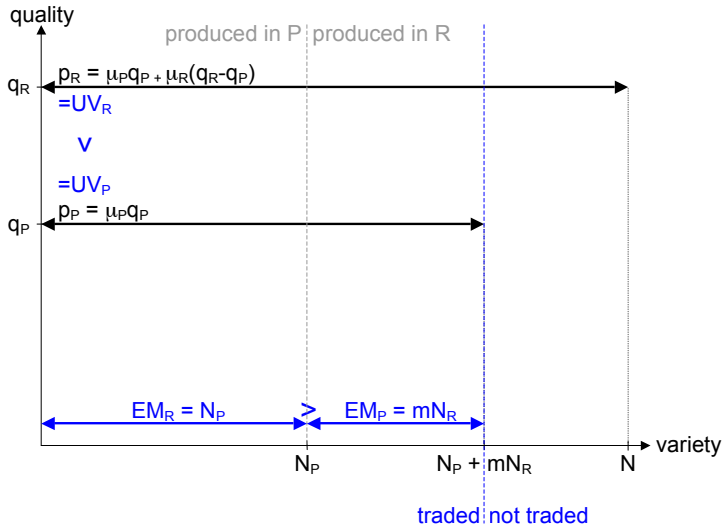
$$L_R A_R = L_P A_P, A_R > A_P$$



$$L_R A_R = L_P A_P, A_R > A_P$$



$$L_R A_R = L_P A_P, A_R > A_P, \underbrace{N_P}_{EM_R} \underbrace{p_R}_{UV_R} \underbrace{L_R}_{X_R} = \underbrace{mN_R}_{EM_P} \underbrace{p_P}_{UV_P} \underbrace{L_P}_{X_P}$$



Conclusion

- Our contribution is the presentation of two unifying frameworks
 - robust relationships between import margins and per capita GDP
 - a simple theory which predicts the relationships we find in the data
- what we find in the data
 - robust and positive relationship between GDP per capita and the extensive, quality and quantity margin of imports, for given GDP
- predictions of our simple trade model
 - due to non-homothetic preferences the quality and variety demanded depends on income level
 - richer countries import a larger set of varieties *and* these varieties are of higher quality, for given aggregate income

Variable	Mean	Std. Dev.	Min.	Max.	N
GDP (in million)*	552489.656	1616361.25	1232.422	13027462	123
GDPpc*	12532.023	13328.593	385.622	51342.68	123
population (in 000s)	52408.545	160706.333	1232.811	1321851.875	123
ln(GDP*)	11.547	1.843	7.117	16.383	123
ln(GDPpc*)	8.769	1.256	5.955	10.846	123
ln(pop. (in 000s))	9.686	1.338	7.117	14.095	123

* PPP, I\$, in 2005 constant prices

Variable	Mean	Std. Dev.	Min.	Max.	N
1_{ci}	0.794	0.404	0	1	155349
V_{ci}	4631.781	63842.182	2	15299380.521	123367
UV_{ci}	89.646	1139.732	0.065	88420.992	123367
X_{ci}	1182.525	14178.331	0	2785028.5	123367
$\ln(V_{ci})$	5.296	2.442	0.693	16.543	123367
$\ln(UV_{ci})$	2.217	1.585	-2.733	11.39	123367
$\ln(X_{ci})$	3.079	2.952	-8.57	14.84	123367
\check{V}_{ci}	21811.994	340952.586	2	75660112.827	123367
$\check{U}V_{ci}$	76.488	997.832	0.061	72004.773	123367
\check{X}_{ci}	4567.524	42245.011	0	4686682.187	123367
$\ln(\check{V}_{ci})$	6.368	2.812	0.693	18.142	123367
$\ln(\check{U}V_{ci})$	2.088	1.554	-2.803	11.184	123367
$\ln(\check{X}_{ci})$	4.28	3.235	-8.57	15.36	123367
r_{ci}	1.673	4.717	0	192.485	155349

Results

Y_{ci} , OECD versus nonOECD sample

	1_{ci}		$\ln(UV_{ci})$		$\ln(X_{ci})$	
	nonOECD	OECD	nonOECD	OECD	nonOECD	OECD
Mean	0.749	0.956	2.132	2.457	2.510	4.662
St. dev.	0.434	0.206	1.588	1.551	2.797	2.793
$\ln(\text{GDP})$	0.052*** (0.009)	0.016*** (0.002)	0.010 (0.014)	-0.033** (0.013)	0.336*** (0.046)	0.891*** (0.097)
$\ln(\text{GDPpc})$	0.045*** (0.013)	0.021*** (0.003)	0.068*** (0.021)	0.205*** (0.025)	0.386*** (0.098)	0.450*** (0.121)
# observations	121,248	34,101	90,779	32,591	90,779	32,591
# regressors	1282	1282	1279	1275	1279	1275
Adjusted R^2	0.416	0.551	0.820	0.921	0.616	0.785

Notes: ***, **, * denote statistical significance on the 1%, 5%, and 10% level, respectively. Robust (clustered by importer) standard errors are given in parentheses. Controls x_c : region dummies (East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia, Sub-Saharan Africa, North America), $\ln(\text{PPP})$. Controls τ_c : dummies for island, landlocked, WTO, # of FTA's, # of CU's, # of neighbor countries, # of countries with common language, average distance to all other countries. Control r_{ci} : remoteness index ($r_{ci} = \frac{1}{\sum_{n \in N} 1(v_{ni} > 0)} \sum_{n \in N_c} \text{distance}_{nc} \cdot \frac{v_{ni}}{v_i}$). HS6 fixed effects. Year=2007. Sample: countries with population > 1 million, HS6 codes which include consumer goods.

Results

Y_{ci} (straightforward), consumer goods

$$\check{V}_{ci} = \sum_{n \in N_{-c}} v_{nci}, \quad \check{X}_{ci} = \sum_{n \in N_{-c}} x_{nci}, \quad \check{U}V_{ci} = \frac{\sum_{n \in N_{-c}} v_{nci}}{\sum_{n \in N_{-c}} x_{nci}}$$

	$\ln(\check{U}V_{ci})$	$\ln(\check{X}_{ci})$	$\ln(\check{V}_{ci})$
Mean	2.088	4.280	6.368
Standard deviation	1.554	3.235	2.812
$\ln(\text{GDP})$	-0.016 (0.013)	0.568*** (0.055)	0.552*** (0.052)
$\ln(\text{GDPpc})$	0.084*** (0.022)	0.451*** (0.102)	0.535*** (0.095)
# observations	123,367	123,367	123,367
# regressors	1276	1276	1276
Adjusted R ²	0.834	0.712	0.693

Notes: ***, **, * denote statistical significance on the 1%, 5%, and 10% level, respectively. Robust standard errors (clustered by importer) are given in parentheses. Controls x_c : region dummies (East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia, Sub-Saharan Africa, North America), belonging to OECD, $\ln(\text{PPP})$. Controls τ_c : dummies for island, landlocked, WTO, # of FTA's, # of CU's, # of neighbor countries, # of countries with common language, average distance to all other countries. Controls r_{ci} : remoteness index $r_{ci} = \left(\sum_{n \in N} 1(v_{ni} > 0) \right)^{-1} \sum_{n \in N_{-c}} \text{distance}_{nc} \cdot (v_{ni} / v_i)$. HS6 code fixed effects. Year=2007.

Results

Robustness controls – 1_{ci} , consumer goods

	1_{ci}	1_{ci}	1_{ci}	1_{ci}	1_{ci}
Mean	0.794	0.794	0.794	0.794	0.794
Standard deviation	0.404	0.404	0.404	0.404	0.404
ln(GDP)	0.043*** (0.005)	0.043*** (0.005)	0.045*** (0.005)	0.044*** (0.008)	0.044*** (0.008)
ln(GDPpc)	0.070*** (0.007)	0.070*** (0.007)	0.056*** (0.010)	0.049*** (0.011)	0.049*** (0.011)
HS6 Fixed Effects?	No	Yes	Yes	Yes	Yes
x_c ?	No	No	Yes	Yes	Yes
τ_c ?	No	No	No	Yes	Yes
r_{ci} ?	No	No	No	No	Yes
# observations	155,349	155,349	155,349	155,349	155,349
# regressors	3	1265	1273	1281	1282
Adjusted R ²	0.141	0.399	0.404	0.411	0.411

x_c : region dummies (East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia, Sub-Saharan Africa, North America), belonging to OECD, ln(PPP). τ_c : dummies for island, landlocked, WTO, # of FTA's, # of CU's, # of neighbor countries, # of countries with common language, average distance to all other countries. r_{ci} : remoteness index ($r_{ci} = \frac{1}{\sum_{n \in N} 1(v_{ni} > 0)} \sum_{n \in N - c} distance_{nc} \cdot \frac{v_{ni}}{v_i}$). Year=2007.

Results

Robustness controls – Y_{ci} , consumer goods

	$\ln(UV_{ci})$	$\ln(UV_{ci})$	$\ln(UV_{ci})$	$\ln(UV_{ci})$	$\ln(UV_{ci})$	$\ln(UV_{ci})$
Mean	2.217	2.217	2.217	2.217	2.217	2.217
St. dev.	1.585	1.585	1.585	1.585	1.585	1.585
$\ln(\text{GDP})$	0.035*** (0.010)	0.015 (0.010)	-0.002 (0.010)	-0.002 (0.012)	-0.002 (0.012)	0.003 (0.011)
$\ln(\text{GDPpc})$	0.106*** (0.018)	0.093*** (0.018)	0.082*** (0.018)	0.085*** (0.020)	0.085*** (0.020)	0.086*** (0.019)
HS6 fe's?	No	Yes	Yes	Yes	Yes	Yes
$x_c?$	No	No	Yes	Yes	Yes	Yes
$\tau_c?$	No	No	No	Yes	Yes	Yes
$r_{ci}?$	No	No	No	No	Yes	Yes
$x_{n_{ci}}?$	No	No	No	No	No	Yes
# observations	123,367	123,367	123,367	123,367	123,367	123,367
# regressors	3	1259	1267	1275	1276	1283
Adjusted R ²	0.012	0.837	0.840	0.841	0.841	0.845

x_c : region dummies (East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia, Sub-Saharan Africa, North America), belonging to OECD, $\ln(\text{PPP})$. τ_c : dummies for island, landlocked, WTO, # of FTA's, # of CU's, # of neighbor countries, # of countries with common language, average distance to all other countries. r_{ci} : remoteness index ($r_{ci} = \frac{1}{\sum_{n \in N} 1(v_{ni} > 0)} \sum_{n \in N - c} \text{distance}_{nc} \cdot \frac{v_{ni}}{v_i}$). $x_{n_{ci}}$: source country region dummies which indicate whether c imports in category i from region 1, 2, . . . , 7. Year=2007.

Results

Robustness controls – Y_{ci} , consumer goods

	$\ln(X_{ci})$	$\ln(X_{ci})$	$\ln(X_{ci})$	$\ln(X_{ci})$	$\ln(X_{ci})$	$\ln(X_{ci})$
Mean	3.079	3.079	3.079	3.079	3.079	3.079
Standard deviation	2.952	2.952	2.952	2.952	2.952	2.952
$\ln(\text{GDP})$	0.383*** (0.056)	0.462*** (0.056)	0.452*** (0.043)	0.464*** (0.047)	0.466*** (0.047)	0.329*** (0.036)
$\ln(\text{GDPpc})$	0.513*** (0.070)	0.613*** (0.071)	0.331*** (0.091)	0.332*** (0.088)	0.328*** (0.088)	0.182*** (0.067)
HS6 fe's?	No	Yes	Yes	Yes	Yes	Yes
$x_c?$	No	No	Yes	Yes	Yes	Yes
$\tau_c?$	No	No	No	Yes	Yes	Yes
$r_{ci}?$	No	No	No	No	Yes	Yes
$x_{n_{ci}}?$	No	No	No	No	No	Yes
# observations	123,367	123,367	123,367	123,367	123,367	123,367
# regressors	3	1259	1267	1275	1276	1283
Adjusted R ²	0.155	0.647	0.660	0.664	0.665	0.697

x_c : region dummies (East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia, Sub-Saharan Africa, North America), belonging to OECD, $\ln(\text{PPP})$. τ_c : dummies for island, landlocked, WTO, # of FTA's, # of CU's, # of neighbor countries, # of countries with common language, average distance to all other countries. r_{ci} : remoteness index ($r_{ci} = \frac{1}{\sum_{n \in N} 1(v_{ni} > 0)} \sum_{n \in N - c} \text{distance}_{nc} \cdot \frac{v_{ni}}{v_i}$). $x_{n_{ci}}$: source country region dummies which indicate whether c imports in category i from region 1, 2, . . . , 7. Year=2007.

Results

Robustness years – Y_{ci} , consumer goods

year		1_{ci}	$\ln(UV_{ci})$	$\ln(X_{ci})$	$\ln(V_{ci})$
1995	$\ln(\text{GDP})$	0.047*** (0.008)	0.014 (0.012)	0.398*** (0.061)	0.413*** (0.056)
	$\ln(\text{GDPpc})$	0.076*** (0.011)	0.054*** (0.020)	0.488*** (0.114)	0.542*** (0.106)
1998	$\ln(\text{GDP})$	0.047*** (0.009)	0.008 (0.010)	0.431*** (0.054)	0.440*** (0.050)
	$\ln(\text{GDPpc})$	0.072*** (0.011)	0.062*** (0.019)	0.444*** (0.116)	0.507*** (0.107)
2001	$\ln(\text{GDP})$	0.053*** (0.008)	0.013 (0.011)	0.444*** (0.060)	0.458*** (0.055)
	$\ln(\text{GDPpc})$	0.059*** (0.011)	0.090*** (0.018)	0.367*** (0.106)	0.457*** (0.104)
2004	$\ln(\text{GDP})$	0.043*** (0.008)	0.015 (0.010)	0.433*** (0.052)	0.448*** (0.049)
	$\ln(\text{GDPpc})$	0.059*** (0.013)	0.068*** (0.019)	0.372*** (0.097)	0.440*** (0.094)
2007	$\ln(\text{GDP})$	0.044*** (0.008)	-0.002 (0.012)	0.466*** (0.047)	0.463*** (0.045)
	$\ln(\text{GDPpc})$	0.049*** (0.011)	0.085*** (0.020)	0.328*** (0.088)	0.413*** (0.084)

Results

Robustness level of disaggregation – Y_{ci} , consumer goods

digits		1_{ci}	$\ln(UV_{ci})$	$\ln(X_{ci})$	$\ln(V_{ci})$
HS6	$\ln(\text{GDPpc})$	0.049*** (0.011)	0.085*** (0.020)	0.328*** (0.088)	0.413*** (0.084)
# observations		155,349	123,367	123,367	123,367
HS5	$\ln(\text{GDPpc})$	0.040*** (0.010)	0.090*** (0.020)	0.323*** (0.088)	0.413*** (0.084)
# observations		107,871	90,299	90,299	90,299
HS4	$\ln(\text{GDPpc})$	0.023*** (0.007)	0.087*** (0.022)	0.351*** (0.093)	0.438*** (0.088)
# observations		38,499	35,404	35,404	35,404
HS3	$\ln(\text{GDPpc})$	0.015*** (0.004)	0.101*** (0.024)	0.295*** (0.091)	0.396*** (0.086)
# observations		11,193	10,718	10,718	10,718
HS2	$\ln(\text{GDPpc})$	0.015*** (0.004)	0.100*** (0.026)	0.279*** (0.093)	0.379*** (0.086)
# observations		8,241	7,889	7,889	7,889
HS1	$\ln(\text{GDPpc})$		0.125*** (0.036)	0.272** (0.104)	0.397*** (0.098)
# observations			1,230	1,230	1,230

Results

Y_{ci} , durable consumer goods

	1_{ci}	$\ln(UV_{ci})$	$\ln(X_{ci})$	$\ln(V_{ci})$
Mean	0.819	2.900	2.311	5.211
Standard deviation	0.385	1.434	2.824	2.438
$\ln(\text{GDP})$	0.052*** (0.008)	-0.003 (0.014)	0.513*** (0.048)	0.510*** (0.045)
$\ln(\text{GDPpc})$	0.045*** (0.012)	0.068*** (0.024)	0.391*** (0.103)	0.459*** (0.097)
# observations	72,939	59,727	59,727	59,727
# regressors	612	611	611	611
Adjusted R^2	0.403	0.798	0.677	0.652

Notes: ***, **, * denote statistical significance on the 1%, 5%, and 10% level, respectively. Robust (clustered by importer) standard errors are given in parentheses. Controls x_c : region dummies (East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia, Sub-Saharan Africa, North America), belonging to OECD, $\ln(\text{PPP})$. Controls τ_c : dummies for island, landlocked, WTO, # of FTA's, # of CU's, # of neighbor countries, # of countries with common language, average distance to all other countries. Control r_{ci} : remoteness index ($r_{ci} = \frac{1}{\sum_{n \in N} 1(v_{ni} > 0)} \sum_{n \in N - c} \text{distance}_{nc} \cdot \frac{v_{ni}}{v_i}$). HS6 fixed effects. Year=2007. Sample: countries with population > 1 million, HS6 codes which include durable consumer goods.

Results

Y_{ci} (straightforward), durable consumer goods

	$\ln(\check{U}V_{ci})$	$\ln(\check{X}_{ci})$	$\ln(\check{V}_{ci})$
Mean	2.752	3.565	6.317
Standard deviation	1.418	3.153	2.812
$\ln(\text{GDP})$	-0.019 (0.016)	0.621*** (0.055)	0.602*** (0.051)
$\ln(\text{GDPpc})$	0.071*** (0.026)	0.511*** (0.111)	0.582*** (0.104)
# observations	59,727	59,727	59,727
# regressors	611	611	611
Adjusted R ²	0.791	0.739	0.737

Notes: ***, **, * denote statistical significance on the 1%, 5%, and 10% level, respectively. Robust (clustered by importer) standard errors are given in parentheses. Controls x_c : region dummies (East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia, Sub-Saharan Africa, North America), belonging to OECD, $\ln(\text{PPP})$. Controls τ_c : dummies for island, landlocked, WTO, # of FTA's, # of CU's, # of neighbor countries, # of countries with common language, average distance to all other countries. Control r_{ci} : remoteness index ($r_{ci} = \frac{1}{\sum_{n \in N} 1(v_{ni} > 0)} \sum_{n \in N_c} \text{distance}_{nc} \cdot \frac{v_{ni}}{v_i}$). HS6 fixed effects. Year=2007. Sample: countries with population > 1 million, HS6 codes which include durable consumer goods.

Results

1_{ci}, Comparison of Linear Probability Model, Probit and Logit

	LPM	Probit	Logit
Mean	0.794	0.777	0.777
Standard deviation	0.404	0.416	0.416
ln(GDP)	0.044*** (0.008)	0.049*** (0.001)	0.042*** (0.001)
ln(GDPpc)	0.049*** (0.011)	0.035*** (0.001)	0.029*** (0.001)
# observations	155,349	141,942	141,942
# regressors	1282	1282	1282
Adjusted R ²	0.411		

Notes: ***, **, * denote statistical significance on the 1%, 5%, and 10% level, respectively. Robust (clustered by importer) standard errors are given in parentheses. For probit and logit the marginal effect are reported at the mean. Controls x_c : region dummies (East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia, Sub-Saharan Africa, North America), belonging to OECD, ln(PPP). Control τ_c : dummies for island, landlocked, WTO, # of FTA's, # of CU's, # of neighbor countries, # of countries with common language, average distance to all other countries. Controls r_{ci} : remoteness index ($r_{ci} = \frac{1}{\sum_{n \in N} 1(v_{ni} > 0)} \sum_{n \in N_c} distance_{nc} \cdot \frac{v_{ni}}{v_i}$). HS6 fixed effects. Year=2007. Sample: countries with population > 1 million, HS6 codes which include consumer goods.