

Burkina Faso: Shipping around the Malthusian Trap

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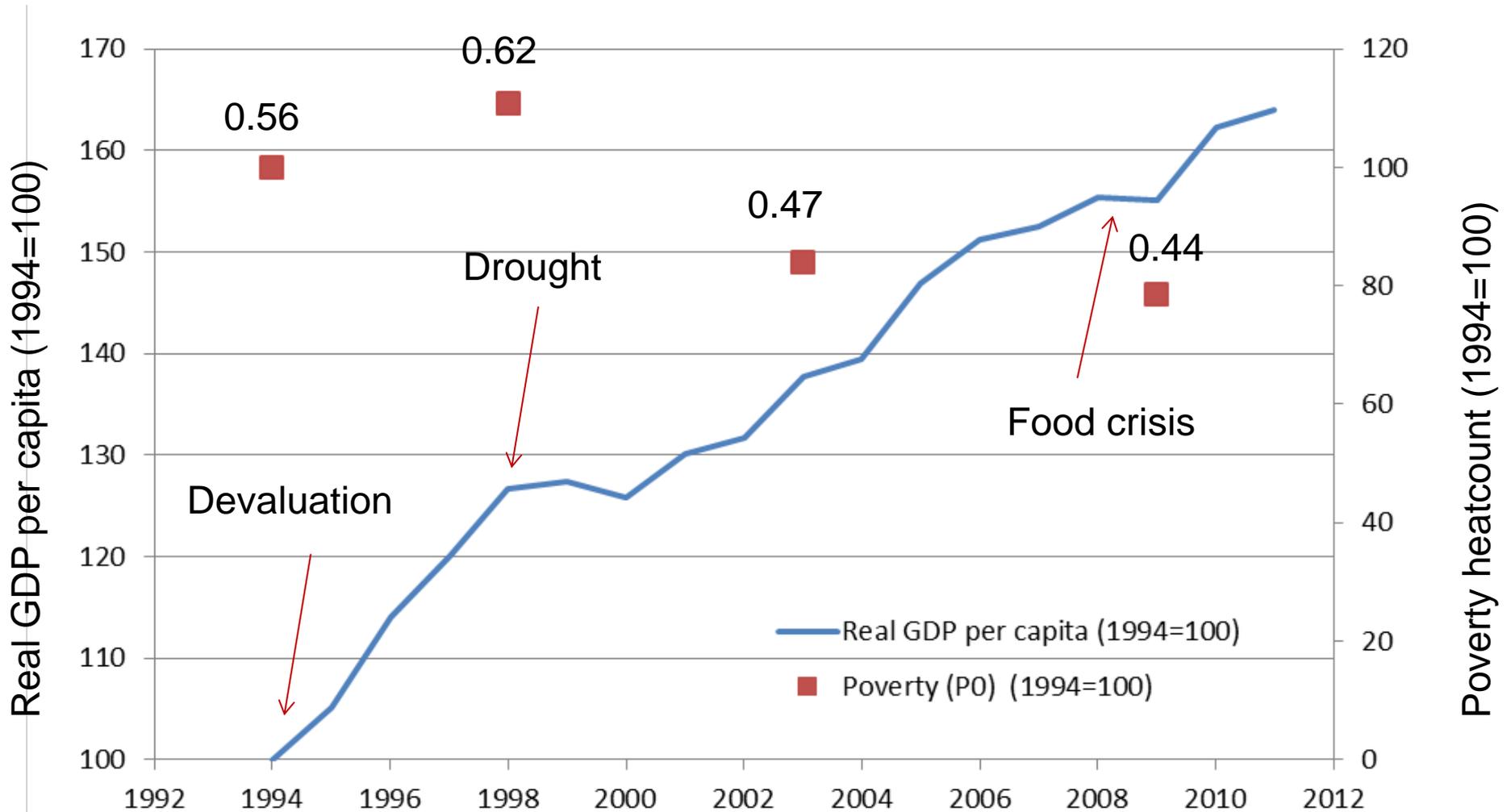
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Sustained economic growth, but only moderate poverty reduction ...



... and hence a very low growth-elasticity of poverty

Country	Period	Growth-elasticity of poverty
Burkina Faso	1994-2009	-0.540
Bangladesh	1992-2000	-0.906
Bolivia	1989-2002	-0.855
Brazil	1993-2001	-1.565
Indonesia	1993-1996	-1.190
Ghana	1992-1999	-2.393
Tunisia	1990-2000	-1.250
Vietnam	1993-2002	-1.370

Source: Burkina Faso: own calculation. All other countries, OPPG.

... why??

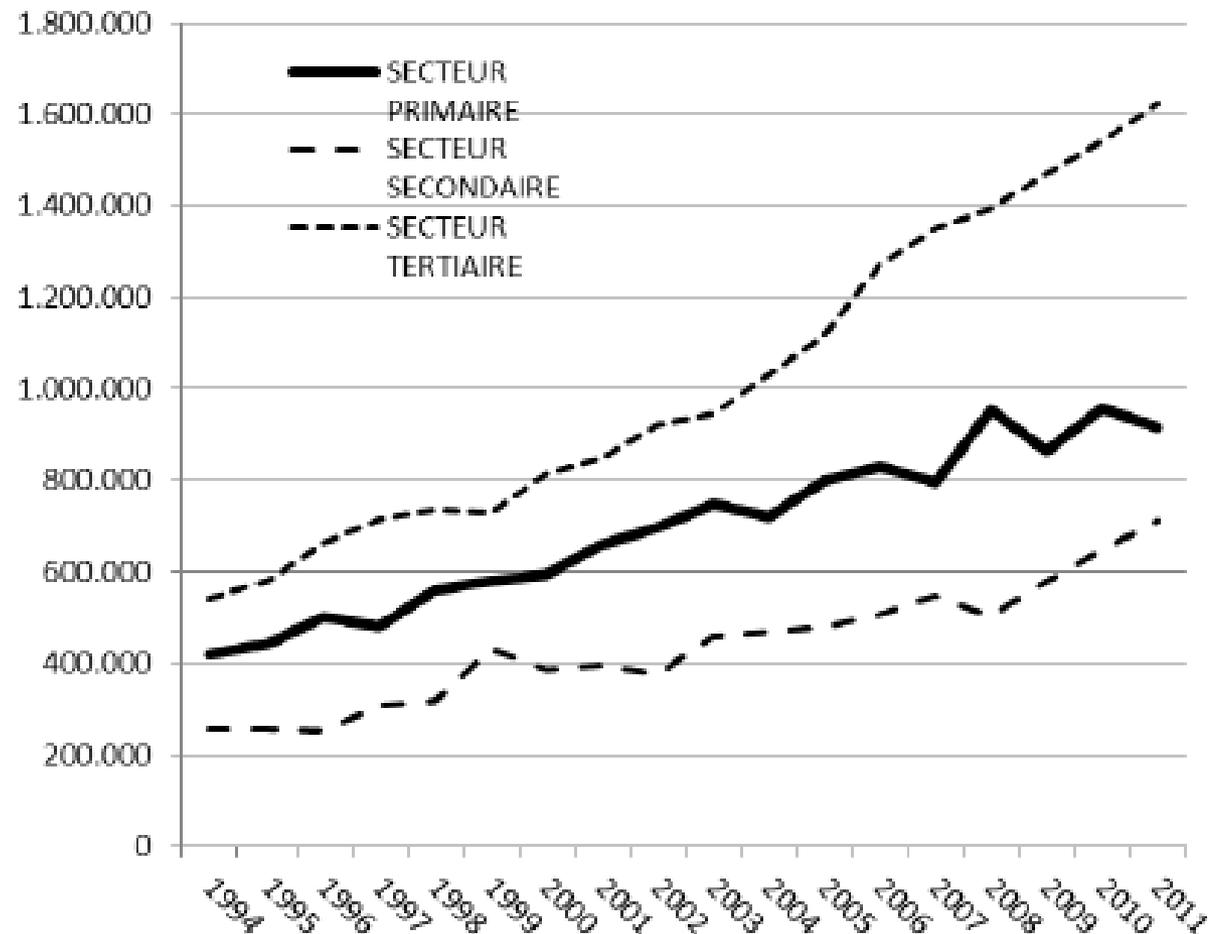
The „story“ up-front

- Economic growth had two sources
 - A massive rural-urban migration
 - An increase in agricultural production, both food crops and cotton, almost uniquely based on the expansion of cultivable land.
- Both sources are unsustainable.
- Structural change is virtually absent.
- Given the stagnation of agricultural productivity and the limits to further land expansion as well as the massive population growth the country is experiencing a steady rise in food prices which is eroding the purchasing power of the population.
- Food price inflation is so substantial, that it seems to seriously affect children's nutrition and health.

Economic growth by sector, population growth and migration

Sectoral GDP over time

Figure 3: Sectoral GDP (constant prices 1999, in Mio. CFA F)



Rural and urban population growth

Table 4: Rural and urban population growth

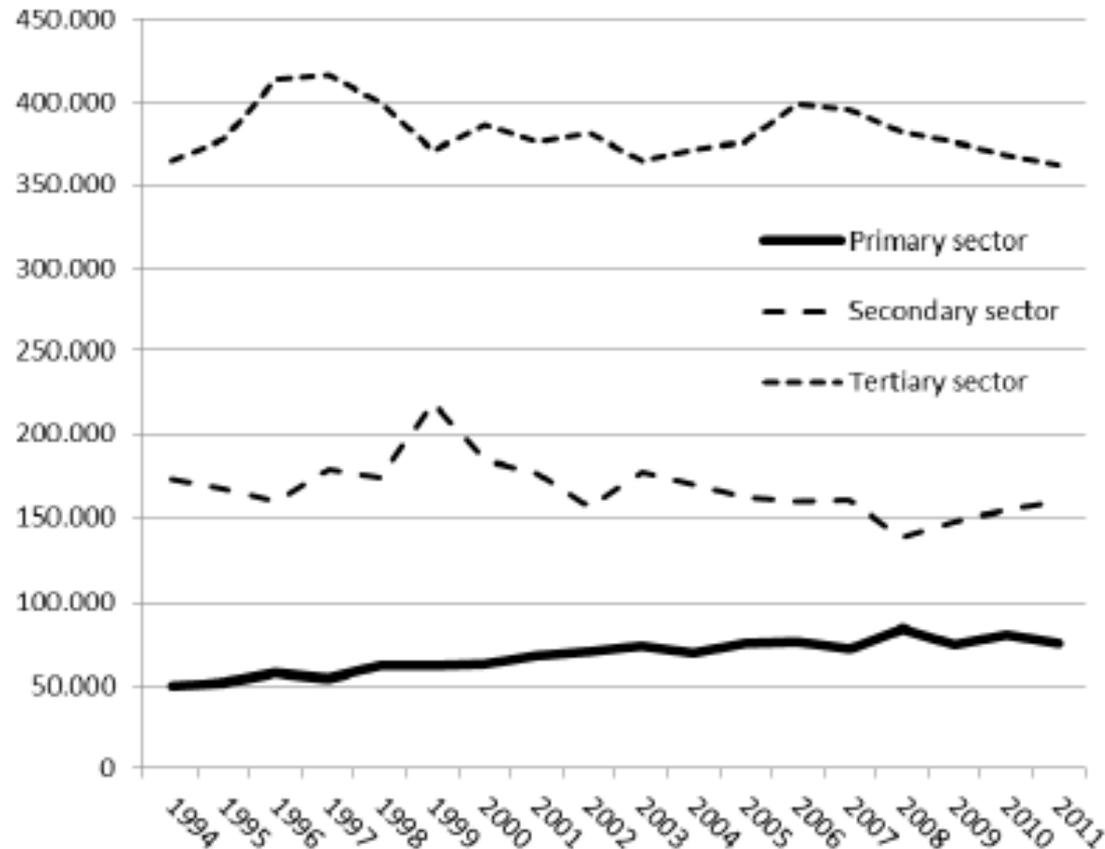
	1985	1996	2006	2011 (proj.)
Rural (count)	6,912,367	8,711,441	10,835,295	12,084,150
Mean annual growth rate over period		0.021	0.022	0.022
Urban (count)	1,052,338	1,601,168	3,181,967	4,485,647
Mean annual growth rate over period		0.039	0.071	0.071
<i>of which</i>				
Ouagadougou (count)	465,969	750,398	1,475,223	
Mean annual growth rate over period		0,044	0,070	
Bobo-Dioulasso (count)	228,668	309,771	489,967	
Mean annual growth rate over period		0,028	0,047	
Other cities (count)	357,701	540,999	1,216,777	
Mean annual growth rate over period		0,038	0,084	
Total (count)	7,964,705	10,312,609	14,017,262	16,571,808
Mean annual growth rate over period		0.024	0.031	0.034

Note: Settlements with a population of 5,000 and above are considered urban.

Source: INSD (www.insd.bf).

Sectoral GDP per capita over time

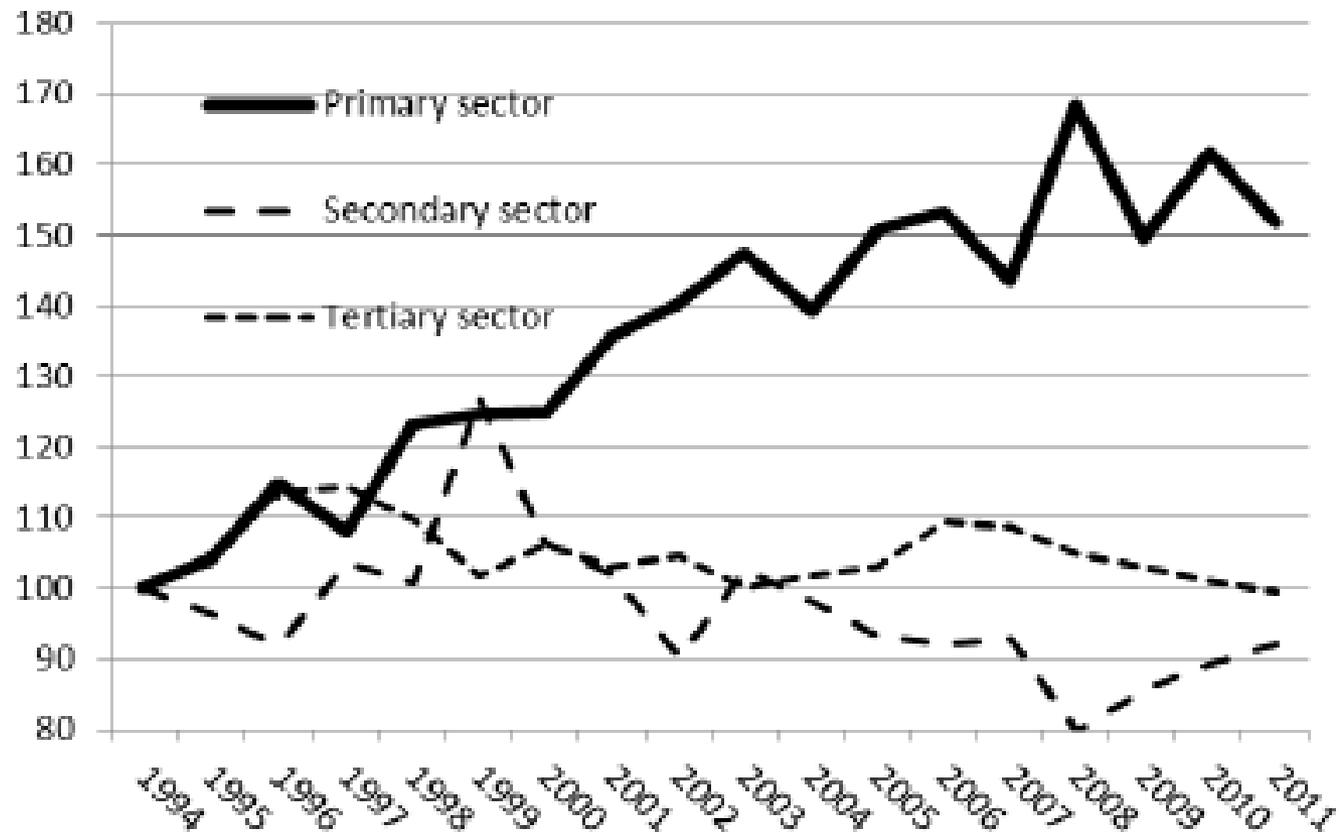
Figure 4: Sectoral GDP per capita (constant prices 1999; in 1000 CFA F)



Source: INSD (www.insd.bf); own computations.

Sectoral GDP per capita growth rates over time

Figure 5: Sectoral GDP per capita growth (constant prices 1999, 1994=100)



Source: INSD (www.insd.bf); own computations.

Rural and urban employment dynamics

Table 5: Employment patterns of population aged 15 to 64 (shares), 1994 to 2007

	1994	1998	2003	2005	2007
<i>Rural</i>					
Public sector worker	0.007	0.006	0.006	0.005	.
Private (formal) sector worker	0.002	0.002	0.006	0.006	.
Informal sector (indep./dep.)	0.042	0.025	0.038	0.049	.
Subsistence agriculture	0.727	0.702	0.621	0.599	.
Cotton agriculture	0.114	0.195	0.208	0.252	.
Inactive	0.107	0.070	0.121	0.089	.
<i>Urban</i>					
Public sector worker	0.068	0.072	0.076	0.068	
Private (formal) sector worker	0.074	0.099	0.109	0.085	
Informal sector (indep./dep.)	0.222	0.208	0.231	0.232	
Subsistence agriculture	0.172	0.206	0.169	0.160	
Cotton agriculture	0.001	0.003	0.006	0.010	
Inactive	0.463	0.411	0.408	0.445	
Households involved in cotton production	0.103	0.167	0.182	0.188	0.154

Source: EP 1994, EP 1998, EP 2003, QUIBB 2004, QUIBB 2007; own computations.

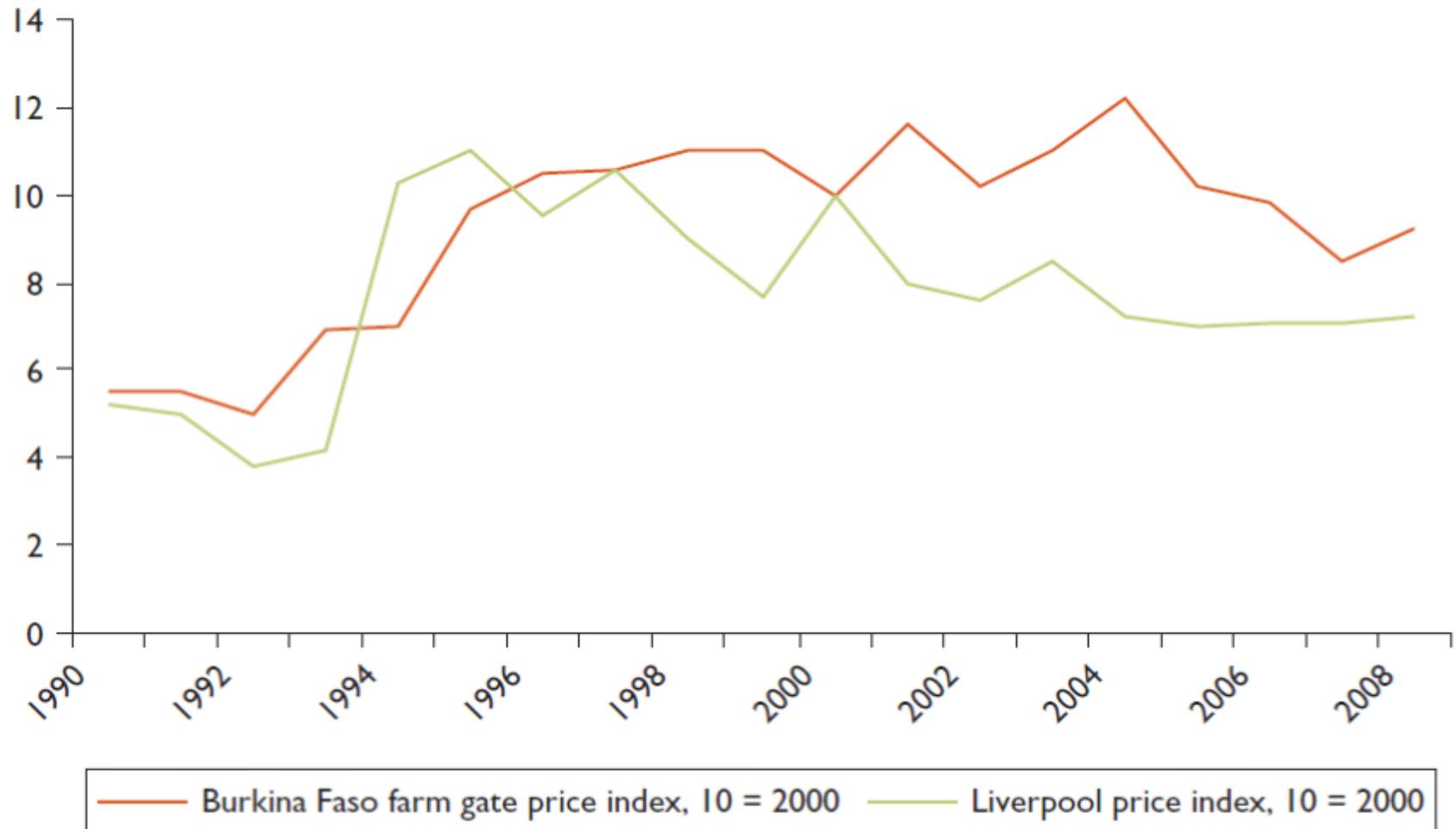
**The development of land use, production
and productivity in food and cotton
production**

Cereal and cotton production

	Food crops			Cotton		
	ha	ton	kg/ha	ha	ton	kg/ha
1995/96	2,694,493	2,296,382	852	145,418	150,451	1,035
1996/97	2,692,899	2,470,971	918	200,768	202,630	1,009
1997/98	2,838,530	2,002,800	706	276,911	343,106	1,239
1998/99	2,969,359	2,642,334	890	334,770	324,557	969
1999/00	2,940,876	2,686,548	914	211,931	257,121	1,213
2000/01	2,645,351	2,268,474	858	209,113	212,545	1,016
2001/02	3,194,448	3,096,769	969	345,578	395,031	1,143
2002/03	3,296,616	3,110,176	943	412,138	439,247	1,066
2003/04	3,566,360	3,555,542	997	443,739	471,945	1,064
2004/05	3,073,117	2,892,905	941	521,466	535,367	1,027
2005/06	3,227,040	3,641,728	1,129	621,748	712,707	1,146
2006/07	3,043,932	3,671,174	1,206	569,858	759,858	1,333
2007/08	3,302,871	3,095,966	937	378,536	377,364	997
2008/09	4,167,474	4,338,972	1,041	535,325	720,675	1,346
2009/10	3,585,683	3,600,539	1,004	406,278	483,865	1,191
Mean annual growth rate	0.021	0.033	0.012	0.076	0.087	0.010

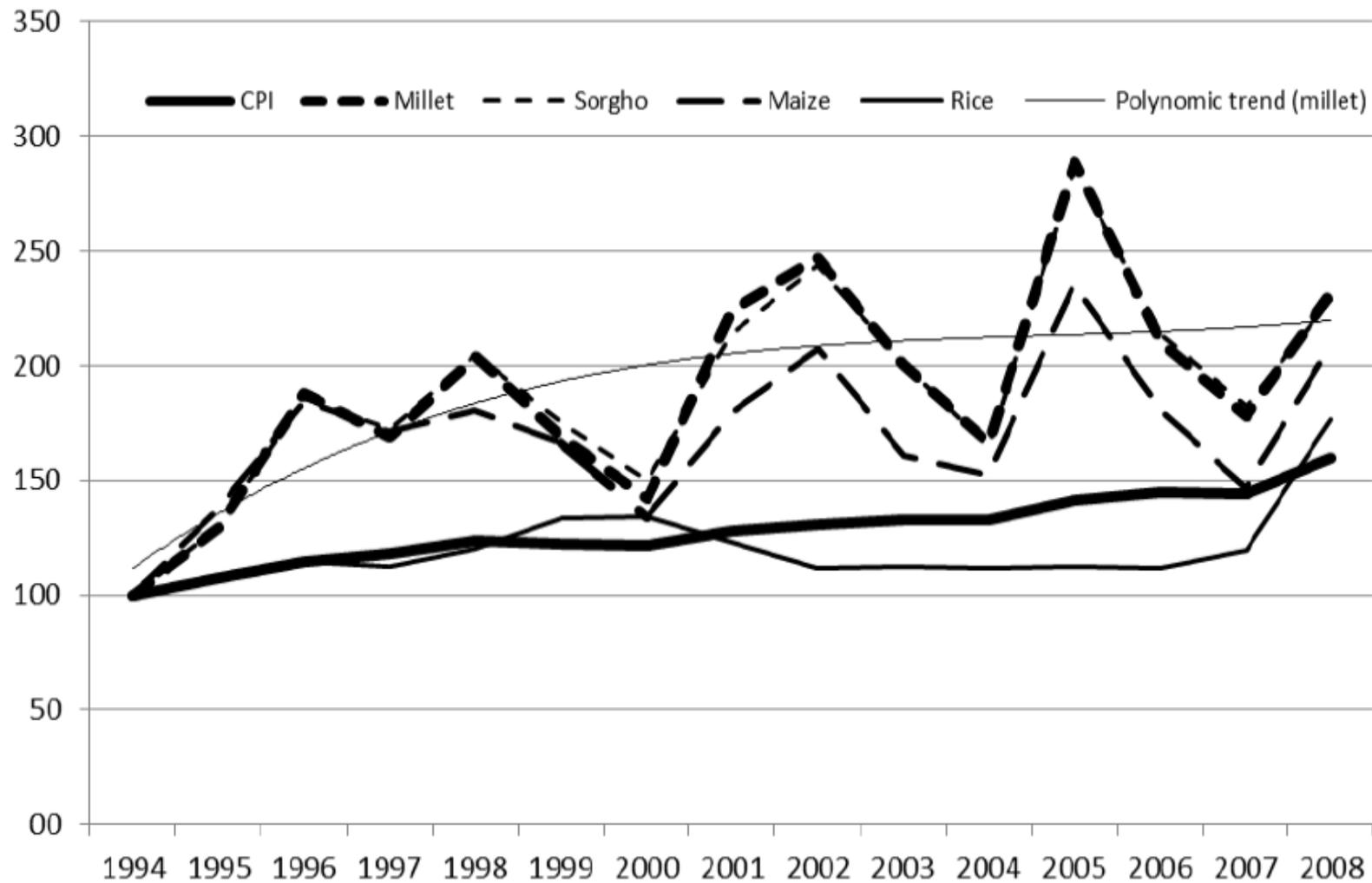
Source: Economic accounts for the agricultural sector, based on the Enquête Permanente Agricole (1995–2010).

Stagnating cotton price



Food price dynamics and purchasing power

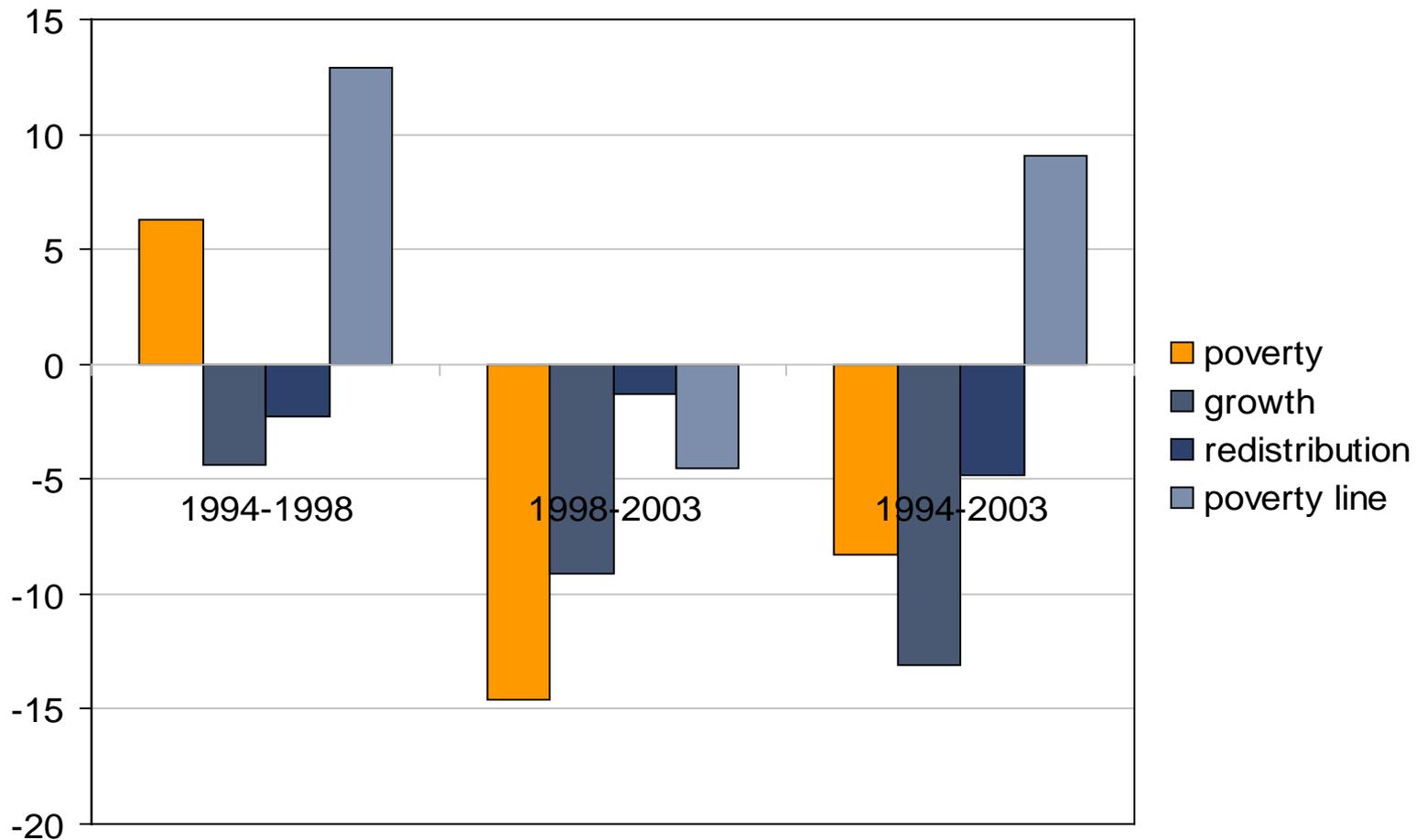
Food price inflation



Impact of food price inflation

- Poor households spend a substantial share of their income on food crops.
- Poor households have very limited possibilities to substitute food crops in their diet.
- Most households are net consumers, not net producers of basic cereals.

The role of differential inflation



Source: Günther and Grimm (JDE, 2007), Augmented DR decomposition.

Development of children's health

Children's malnutrition and mortality

	1993	1998	2003	2010
Share of children under 5, weight-for-height (wasting) < 2StDev				
All	0.130	0.140	0.194	0.139
Urban	0.094	0.101	0.133	0.122
Rural	0.148	0.147	0.207	0.144
Share of children under 5, height-for-age (stunting) < 2StDev				
All	0.366	0.436	0.427	0.343
Urban	0.253	0.259	0.257	0.242
Rural	0.424	0.471	0.461	0.372
Infant mortality per 1000 live births				
All	108	109	n.a.	n.a.
Urban	76	67	70	61
Rural	113	113	95	81
Under five mortality per 1000 live births				
All	205	224	n.a.	n.a.
Urban	148	129	136	104
Rural	214	235	202	156

Source: Own computations based on DHS 1993, 1998, 2003 and 2010 and officially published survey reports (DHS, 1994, 2000, 2004, 2012).

Conclusion

- A doubling of the population since 1985, rapid urbanization and absence of any substantial structural change ...

... → today 6.5 million people below the poverty line, i.e. *about 1 million more than in 1994.*
 - Without substantial structural change Burkina Faso will not be in a position to absorb the 0.3 to 0.5 million men and women that enter each year the labour force.
-

Conclusion

Next questions:

Why has structural transformation not taken place?

Political Economy?

Too much donor involvement?

Lack of commitment?

To Pinkovsky and Sala-i-Martin (2010) and Young (2012):

- This study identifies (endogenous) food price inflation as a major driver of poverty.
- Its adverse effects on the poor would have remained largely unnoticed, if we had, as in Pinkovsky and Sala-i-Martin (2010), used an approach that uniquely focuses on GDP, GDP deflators and nominal expenditure distributions.
- It would also have remained unnoticed if we had, as in Young (2012), focused on asset ownership, ...

... since this approach ignores shifts in relative prices, i.e. the fact that in many regions food becomes more and more expensive relative to durables ...

... this makes it unlikely that the income-elasticity-of-asset-demand, as Young assumes, stays constant over longer periods of time.

Thank You!

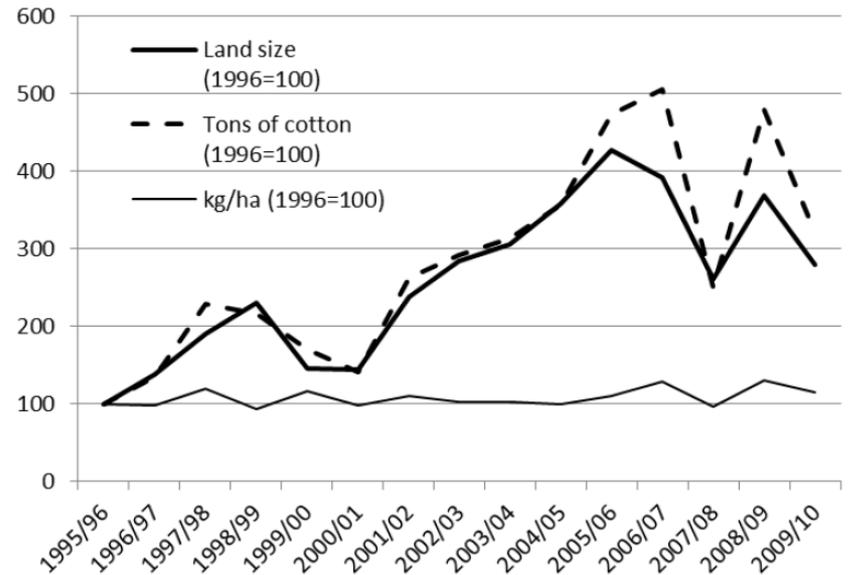
Outline

- Economic growth by sector, population growth and migration
- The development of land use, production and agricultural productivity
- Food price dynamics and purchasing power
- Development of children's health

Cereal and cotton production



(a) food crop sector



(b) cotton sector

Budget shares and farmers' market integration

Rural

Table 9: Budget shares and farmers' market integration

Rural	1994			1998			2003		
	All	Q1	Q5	All	Q1	Q5	All	Q1	Q5
Food crops	0.23	0.27	0.18	0.43	0.48	0.31	0.30	0.38	0.22
Millet/Sorghum	0.16	0.24	0.09	0.33	0.40	0.21	0.22	0.30	0.15
Maize	0.04	0.03	0.04	0.06	0.06	0.06	0.04	0.05	0.03
Rice	0.03	0.01	0.05	0.03	0.02	0.04	0.04	0.03	0.04
Other Food items	0.28	0.33	0.25	0.20	0.20	0.19	0.26	0.29	0.23
Rent and utilities	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Education	0.07	0.03	0.10	0.03	0.02	0.05	0.04	0.01	0.06
Health	0.08	0.13	0.05	0.06	0.11	0.04	0.06	0.10	0.05
Transfers made	0.04	0.01	0.06	0.04	0.01	0.08	0.03	0.00	0.05
Other	0.29	0.22	0.35	0.24	0.17	0.32	0.30	0.20	0.39
Total	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HH producing food crops (share)	0.90			0.94			0.90		
HH selling food crops (share)	0.16			0.15			0.30		
Share of purchased food crops	0.15			0.49			0.33		

Table notes, see next page.

Budget shares and farmers' market integration

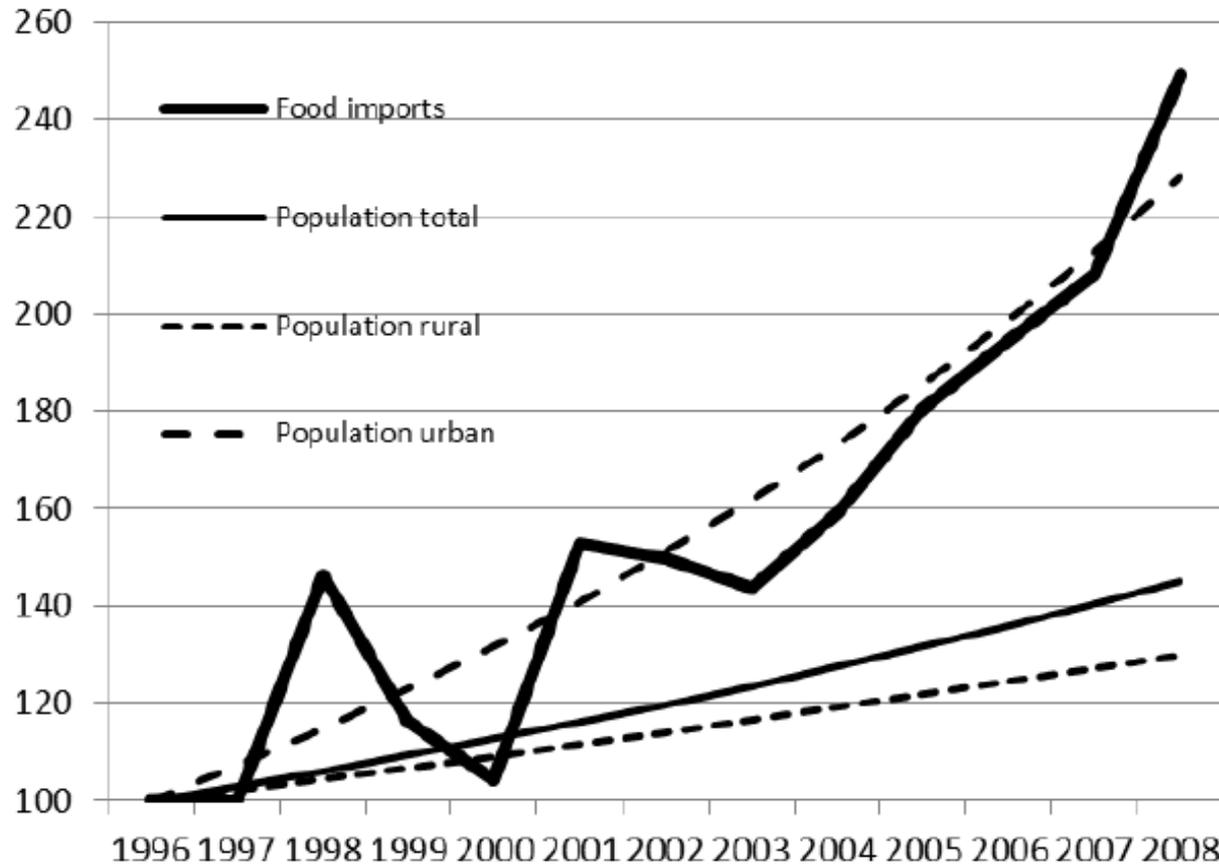
Urban

Table 9: (... continued)

Urban	1994			1998			2003		
	All	Q1	Q5	All	Q1	Q5	All	Q1	Q5
Food crops	0.10	0.18	0.06	0.15	0.35	0.06	0.13	0.25	0.06
Millet/Sorghum	0.03	0.11	0.01	0.05	0.21	0.01	0.03	0.10	0.01
Maize	0.02	0.03	0.01	0.05	0.10	0.02	0.04	0.08	0.02
Rice	0.05	0.04	0.04	0.05	0.04	0.04	0.06	0.07	0.03
Other Food items	0.24	0.27	0.20	0.20	0.21	0.16	0.22	0.28	0.19
Rent and utilities	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04
Education	0.09	0.06	0.10	0.06	0.03	0.07	0.06	0.02	0.07
Health	0.12	0.18	0.10	0.11	0.15	0.10	0.15	0.14	0.15
Transfers made	0.04	0.01	0.07	0.07	0.01	0.13	0.03	0.00	0.05
Other	0.38	0.27	0.44	0.36	0.22	0.44	0.37	0.27	0.44
Total	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HH producing food crops (share)	0.26			0.25			0.24		
HH selling food crops (share)	0.02			0.01			0.04		
Share of purchased food crops	0.83			0.91			0.86		

Source: EP 1994, EP 1998, EP 2003; own computations.

Food imports and population growth (1996=100)



Note: Food includes all vegetarian products, food oil and fat products, processed food (vegetarian and animal based) and all drinks. Unprocessed animal products are not included.

Source: INSD (www.insd.bf).