

Appendix Contents

<i>Table A1.1</i> Key macroeconomic indicators, 2000–2005	1
<i>Box A1.1</i> Multiple licences: the tourism sector	2
<i>Box A1.3</i> Nigeria: key constraints to growth	5
<i>Box A1.3</i> continued	6
<i>Table A3.1</i> Growth, institutions and natural resources: robustness to covariates	7
<i>Table A8.1</i> Selected economic indicators (annual percentage changes)	10
<i>Box A12.1</i> Dealing with winners and losers in Nigeria’s port reforms	12
<i>Table A14.A1</i> FAO Adult Equivalence Scale	15
<i>Table A14.A2</i> Classification of states into regions	15
<i>Table A16.1</i> Means and standard deviation of variables ^a	18

Table A1.1 Key macroeconomic indicators, 2000–2005

	Actual					Est.
	2000	2001	2002	2003	2004	2005
Growth, investment and savings						
Real GDP growth (%; at 1990 factor costs)	5.6	3.3	1.4	10.9	6.1	6.9
Non-oil (%; at 1990 factor costs)	2.8	4.3	8.0	4.4	7.4	8.2
Gross investment (% of GDP)	20.3	24.1	26.2	23.9	22.4	20.9
Public fixed investment (% of GDP)	9.6	13.8	10.0	9.7	9.1	9.1
Gross national savings (% of GDP)	32.0	28.6	14.5	21.1	27.0	33.4
Money and prices						
Broad money (% change)	48.2	27.2	21.6	24.1	14.0	16.5
Consumer inflation (%; annual average)	6.9	18.0	13.7	14.0	15.0	17.9
Treasury bill rate (%; end of period)	14.6	20.0	14.9	14.9	14.3	12.0
DAS official exchange rate (naira per \$; average)	102.2	112.0	122.2	130.9	134.3	131.0
Terms of trade (% change)	53.2	-10.4	-0.5	2.5	20.5	37.8
Public finance (consolidated government)						
Government revenue and grants (% of GDP)	42.5	42.1	36.4	37.1	43.1	43.3
Government expenditure, total (% of GDP)	36.5	47.0	40.7	38.4	35.4	33.4
Non-oil primary balance (% of non-oil GDP, cash basis)	-34.8	-43.2	-29.9	-34.4	-35.2	-39.8
Overall balance (% of GDP, commitment basis)	6.0	-4.9	-4.2	-1.3	7.7	9.9
Balance of payments						
Exports of goods and services (% of GDP)	54.3	43.3	40.9	49.7	54.6	55.2
Imports of goods and services (% of GDP)	32.2	32.5	41.8	41.5	37.4	33.9
Current account balance (% of GDP)	11.7	4.5	-11.7	-2.7	4.6	12.6
Gross international reserves (\$ billion)	9.4	10.4	7.7	7.5	17.0	28.3
Gross international reserves (months of imports of goods and services)	7.3	6.5	3.9	3.4	6.1	8.7
External debt						
External debt outstanding (\$ billion) ^{a,b}	30.2	29.7	31.0	32.9	35.9	20.5
External debt outstanding (% of GDP) ^{a,b}	66.1	62.3	67.2	57.2	50.4	20.7
Debt service due (% of exports of goods and services)	6.9	12.1	15.6	10.3	7.8	6.4

a Nominal public sector short- and long-term debt, end of period.

b In 2005 reflecting also a \$7.1 billion write-off of Paris Club debt.

Source: IMF, 2005.

Box A1.1 Multiple licences: the tourism sector

The multiplicity of permits required by all three levels of government present a key bottleneck to rapid development of the tourism industry. In addition to the 16 separate permits required for service providers in the tourism industry, specific states impose additional specific burdens on their operators. For instance, a report by the Presidential Council of Tourism identified the regulatory environment in Edo State as particularly onerous because of the duplicative charges for boreholes and generators and unofficial charges levied by both state and local governments. Hoteliers are critical of the lack of transparency surrounding the administration which leaves the system open to fraud and corruption and increases operational costs to a point that undermines commercial viability.*

Permit requirements for tourist establishments

1. Veterinary Fees
2. Registration for Issuance of Health/Sanitation
3. Business Premises
4. Sign Board and Advert Permit
5. Tenement Rate
6. Environmental Protection Board, Sewage and Refuse Disposal
7. NTDC Registration Fees
8. VAT/TAX
9. Industrial Training Fund
10. Pay as you earn (PAYE)
11. National Social Insurance Trust Fund (NSITF)
12. Company's Income Tax
13. On and Off Liquor Licence
14. Radio and Television Licence Fees
15. Education Tax
16. NEPA Bills and Diesel

* Hotel owners forum, Abuja.

Box A1.2 Findings from Nigeria value and supply chain analysis

The cassava value chain

- An example of a nascent industry attempting to grow into maturity but hampered by fundamental constraints in the sourcing of cassava root as raw material – its value chain is characterized by low social returns (bad infrastructure, low human capital and poor geography) and high cost of finance determined by high punitive interest rates. An estimated massive 33 per cent of total cost is attributable to movement of primary inputs from numerous and dispersed small-scale farms to the factories.
- Compounding this is disruptive and high-cost delivery of public utilities which drive up production costs – these costs represent the most binding constraint of the chain by far, accounting for 24 per cent of value added, and deplete any profit margin. Poor electricity in particular suppresses firm productivity – the cassava starch producer studied in the value chain is forced to supplement grid electricity with its own generator for 60 per cent of its needs.
- Finally, capital charges make up on average 21 per cent of the capital intensive cassava starch chain value – limiting the use of borrowed funds and driving up debt servicing costs, both of which are prohibitive to efforts to develop this dynamic, high-potential industry.

Finished leather goods

- The domestic market for footwear is increasingly dominated by Chinese imports. The export of leather hides is enjoying success particularly to the Italian and more recently Chinese markets. Key binding constraints relate to quality of raw material and high-cost capital financing.
- To recapture domestic market share, which in contrast to exports has fallen dramatically – only two companies are left, with the industry at the point of extinction, despite the advantage of a large domestic market of 130 million people – technology upgrading is needed. However, again, inexpensive capital financing is simply unavailable.

The shrimp value chain

- An example of industry revival – once in decline because of falling fish stocks, it has developed high-value shrimp exports to the European Union which recorded just under \$55 million earnings in 2002.
- Capital financing mostly comes from abroad and, while high and very lumpy (essentially trawlers and working capital), is not the key constraint. In addition to issue of fish stocks, private appropriability remains a key problem as evidenced by the excessive licensing requirements facing shrimp operators.

Box A1.2 continued

Lower potential value chains include textiles

- This is an industry that has been in decline since the late 1990s. Low returns have been driven by both low social returns resulting from low human capital and bad infrastructure. The skills base and productivity of labour just is not up to par in a sector which requires high skills.

A strong labour union means yearly wage rates are increasing at about 10 per cent per annum, and there is also rigidity in the labour market. Moreover, a high degree of absenteeism, especially in spinning operations, results in 10 per cent of spinning machines typically out of operation. Firms particularly struggle to offset administrative costs wasted on supervision of this low-quality labour – some managers spend 50 per cent of their time checking and policing staff to safeguard the security of their operations.

Box A1.3 Nigeria: key constraints to growth

Source	Key constraints as reported in the diagnostic work
Marchat (2002)	<p>1. Infrastructure: in particular power; twice as much of a problem as either of the next two (94 per cent of firms cited as number one). Virtually all firms have a facility to allow them to generate their own power (between 93 and 100 per cent sample across size and location).</p> <p>2. Credit: second most important constraint – due to high cost and limited availability. Some 38.5 per cent of the full sample of firms considers themselves credit constrained. This differs depending on the size of the firm: 48 per cent of micro enterprises view credit as a constraint, only 25 per cent of very large firms. Indigenous companies are far more constrained than foreign companies. Long-term finance is rare – fewer than 16 per cent of the sample reported having loans longer than one year in duration (service sector has best access).</p> <p>3. Uncertainty: high level of uncertainty about government policy and administrative performance and lack of confidence of managers when predicting future sales and investment plans, especially in long run. Business environment uncertainties highlighted are: (i) legal and judicial systems which do not offer a reliable basis for dispute resolution, protection of property rights and enforcement of contracts; (ii) complex, poorly administered and widely evaded tax system; (iii) complex and lengthy regulatory and licensing procedures for businesses; (iv) poorly administered customs systems, subject to widespread evasion; (v) weak governance and policy formation at state and local level, thus much duplicity.</p>
Skoup (2003)	<p>1. Infrastructure: over 90 per cent of firms highlighted this as the main constraint with 85 per cent indicating high utility costs to be the main constraint.</p> <p>2. Access to credit: over 90 per cent of firms highlighted this as the second key constraint.</p> <p>3. The unpredictability of laws and regulations: 80 per cent of the firm sample highlighted this as a major constraint. Further specification significant problems are: unilateral action by state and local governments (78 per cent); official corruption (over 85 per cent). Many firms have had to find ways to internalize problems/costs related to barriers such as infrastructure (private provision); one extreme example is in the case of import/export procedures where only 12 per cent now claim that this disrupts their business.</p>

Box A1.3 continued

Source	Key constraints as reported in the diagnostic work
Bhaumik and Estrin (2006)	<p>Large firms: main determinants of financial performance (FP), productivity and export orientation (PEO) and employment creation (EC) are: (i) access to finance; (ii) infrastructure and business environment; (iii) barriers to entry and competition.</p> <p>SMEs: main factors determining FP and PEO are quality of trained staff, infrastructure and logistics. Having a sole proprietor also tends to reduce investment level and therefore also EC.</p> <p>Informal sector firms: access to formal sector finance and infrastructure services and the main drivers in cost and profitability of informal firms. Access to subcontracts is a further major determinant of FP and EC.</p>
Yee <i>et al.</i> (2005)	<p>Textiles: inputs (36–71 per cent of total cost); capital charges (5–13 per cent); administration (5–13 per cent); utilities (5–15 per cent).</p> <p>Cassava: inputs (46 per cent, of which 56 per cent to labour); logistics/transport (33 per cent); capital charges (21 per cent).</p> <p>Leather: inputs (33–50 per cent); labour (11–12 per cent); capital charges (19 per cent); utilities (5–8 per cent).</p> <p>Shrimp: fuel (36 per cent); administration (13 per cent); capital charges (10 per cent).</p>

Table A3.1 Growth, institutions and natural resources: robustness to covariates

	<i>Panel A. Second stage: Dependent variable is real per capita GDP growth, 1970-98</i>					<i>Panel B. First stage: Dependent variable is rule of law</i>					
	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)	(6)
Rule of Law	0.035	1.154	1.072	1.408	0.992						
	[0.971]	[0.586]	[0.557]	[0.497]	[0.440]						
lnRGDP70 1/	-1.239	-2.023	-1.716	-1.91	-1.41	0.521	0.385	0.638	0.719	0.73	0.664
	[0.664]	[0.476]	[0.532]	[0.527]	[0.459]	[0.120]	[0.221]	[0.132]	[0.129]	[0.138]	[0.128]
P60	2.956	2.437	2.753	2.66	2.42	0.131	-0.334	0.066	0.116	0.159	0.578
	[0.775]	[1.147]	[0.843]	[0.850]	[0.762]	[0.357]	[0.434]	[0.437]	[0.400]	[0.459]	[0.375]
IPRICE1	-0.013	-0.01	-0.01	-0.01	-0.01	-0.002	-0.002	-0.001	-0.002	-0.002	-0.002
	[0.004]	[0.003]	[0.003]	[0.002]	[0.003]	[0.001]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]
MALFAL66	-0.112	-0.996	-0.914	-0.557	-0.859	0.29	-0.248	-0.149	-0.084	-0.185	-0.279
	[0.654]	[0.496]	[0.490]	[0.501]	[0.483]	[0.261]	[0.258]	[0.272]	[0.260]	[0.266]	[0.265]
DENS65C	0.002	0.001	0.001	0.001	0.001	0.001	0	0	0	0	0
	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
totshkwtd7098	-0.085	-0.083	-0.079	-0.088	-0.082	0.005	0.011	0.014	0.01	0.011	0.007
	[0.016]	[0.021]	[0.020]	[0.020]	[0.021]	[0.010]	[0.008]	[0.008]	[0.009]	[0.008]	[0.010]
EURFRAC						-0.239	-0.603	-0.6	-0.719	-0.675	-0.764
						[0.210]	[0.218]	[0.231]	[0.237]	[0.241]	[0.230]
ENGFAC						0.487	0.434	0.576	0.588	0.565	0.568
						[0.221]	[0.288]	[0.297]	[0.307]	[0.302]	[0.304]
fuelmineralsharegdp80	2.556	3.127	2.539	3.674	2.59	-1.347	-2.004	-2.494	-2.461	-2.577	-2.53
	[1.468]	[1.644]	[1.631]	[1.708]	[1.665]	[0.577]	[0.478]	[0.510]	[0.544]	[0.501]	[0.537]
foodagrisharegdp80	3.434	-1.364	-1.476	-1.202	-0.162	2.195	0.667	0.344	0.66	0.573	-0.038
	[4.274]	[3.220]	[2.905]	[3.187]	[2.809]	[0.945]	[1.136]	[1.237]	[1.206]	[1.267]	[1.193]
TROPICAR	-1.998					-0.901					
	[1.065]					[0.270]					
LIFE060		0.036					0.039				
		[0.048]					[0.018]				
YRSOPEN			0.538					0.51			
			[0.648]					[0.256]			
AVELF				-1.009					-0.313		
				[0.509]					[0.325]		
CONFUC					4.547					0.127	
					[0.681]					[0.398]	
Observations	71	71	71	71	71	71	71	71	71	71	71
Adjusted R-squared	0.67	0.64	0.64	0.63	0.68	0.76	0.73	0.72	0.71	0.71	0.74

Robust standard errors in brackets

1/ In column 6, the initial level of income refers to the year 1960 instead of 1970

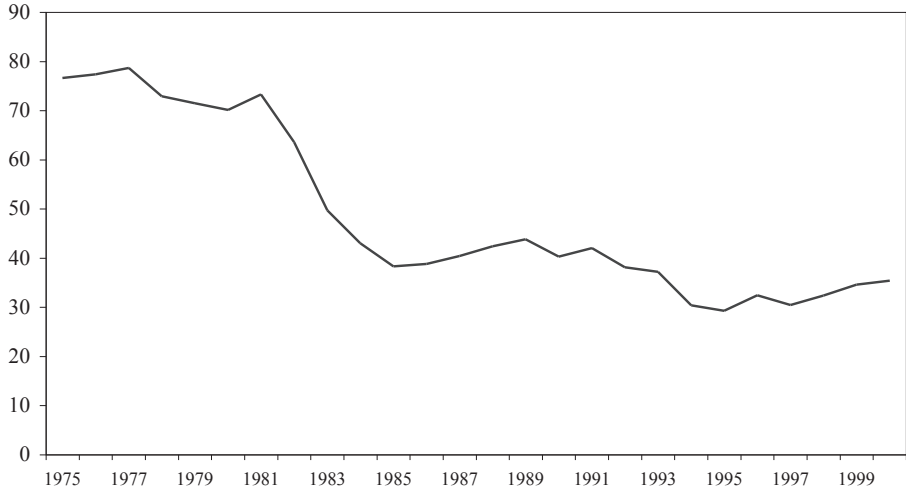


Figure A3.1 Average capacity utilization in manufacturing (%), 1975–2000.
Source: Authors' calculations.

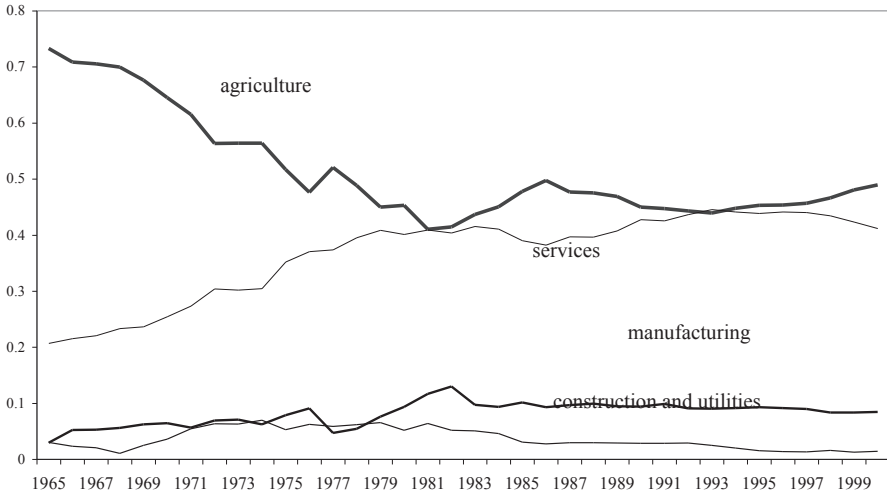


Figure A3.2 Nigeria: shares of sectors in non-oil GDP.
 Source: Authors' calculations.

Table A8.1 Selected economic indicators (annual percentage changes)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Average 1992-2002
Total GDP	2.43	0.58	-1.61	2.29	6.20	2.77	0.23	1.49	5.64	3.31	1.42	2.25
Oil GDP	2.27	1.24	0.12	2.17	4.48	1.47	-5.39	-4.13	11.54	1.42	-11.63	0.32
Non-oil GDP	2.52	0.21	-2.58	2.35	7.17	3.51	3.40	4.39	2.84	4.28	7.96	3.28
CPI inflation (year on year)	48.8	61.3	76.8	51.6	14.3	10.2	11.9	0.2	14.5	16.5	12.2	28.94

Source: Federal Government of Nigeria (unpublished data) and IMF (2001, 2003, 2005).

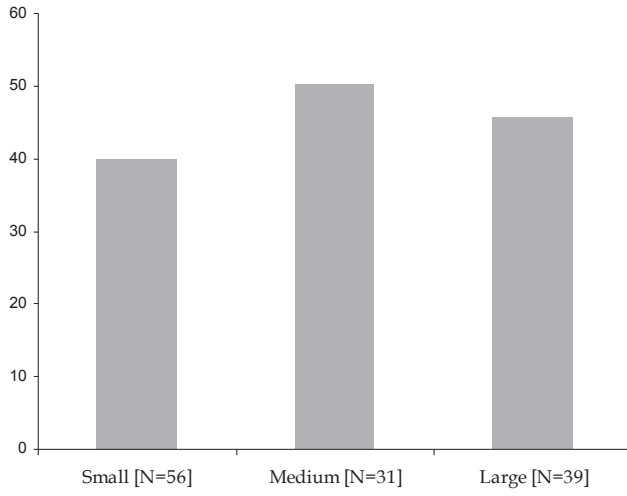


Figure A11.1 Capacity utilization, by firm size (%).

Box A12.1 Dealing with winners and losers in Nigeria's port reforms

Every system grows with supporting interests. It does not matter how bad a system is, there are always groups who find themselves obtaining one form of benefit or another from it. Thus, most often, considerations for reform might be concurrent with loss of privileges enjoyed by benefiting groups. Inevitably, such groups try to resist such changes and maintain a status quo. Equally, all changes improve the gains and advantages of some other groups. The latter may not have been in the limelight before, but are provided with new opportunities by the changes. A good reform, therefore, is one that is able to ensure that losers are not in the majority and do not include groups that are adding substantial real value to the general economy.

Port reforms everywhere result in winners and losers. For example, in the Argentine case, the key potential losers are road transport operators. About 90 per cent of the goods circulating in Argentina travel by road, with very limited involvement of other modes. Efforts to promote the use of railways or coastal shipping are the rational alternative for the geography of this country, but an extremely strong trucking industry engages in permanent lobbying to avoid the growth of railways and coastal shipping. The trucking industry manages to avoid generating enough information to allow fair cost comparisons between different modes of transport. Predatory pricing based on subsidies (for maintenance of vehicles, which contributes to a difficult safety situation on Argentina's roads) has been quite common. This is one of the reasons why long-distance traffic has not yet switched enough volume to the railway sector or to coastal and river transport.

The report on Nigeria's port reforms lists a number of challenges, including but not limited to:

- reaching an agreement with labour unions on severance packages;
- keeping labour unions from widespread strike;
- resolving the existing lease issues and converting some into directly negotiated concessions.

The list also includes different kinds of stakeholders, but particularly shows the impact of labour. Most often, liberalization and privatization of sectors with the aim of improving efficiency has always seemed to entail rationalization of the workforce. This has often proved to be a sore point, and could be the source of failure for many good policies because those affected will resist the policies.

On the other hand, winners in port privatization can include importers, manufacturers/exporters, shipping firms and other real sector producers. For this set of operators, the difficulties associated with access to port facilities are reduced. The public sector could also gain substantial revenue.

However, in many reforms, experience has shown that although the losers are always more organized and vocal the winners are less vocal and, in

Box A12.1 continued

many cases, not organized at all. This calls for deliberate policies to locate winners and to empower them with the means to advertise the potential gains that could be brought about by the reforms. This could significantly help those policy-makers who need to be reassured that reforms being embarked upon will make the requisite impact on the macroeconomy.

Supplementary material

The questionnaire inquired about health spending in two sections: in Section 3, when inquiring about treatment of episodes of ill-health, and in Section 10, as part of overall household spending. Unfortunately, there was a major discrepancy in the estimates of household spending on health from these two sources. Section 3 gave a mean health spending per household of 17,785 naira per year (or 14 per cent of total spending) whereas Section 10 gave a mean of 1859 naira per year if a three-month recall period was used or 2427 with a twelve-month recall period.

Part of the discrepancy may be due to the Section 3 aggregate including transport costs, which were not classified as health spending in Section 10. Another possible source of discrepancy is that not all health expenditures recorded in Section 3 were necessarily paid by the household – they could have been paid by relatives, for example. There were also inconsistencies between the two sources of data – 37 per cent of households reported non-zero health spending in one section and not the other. However, even when we tried to adjust for these three sources of discrepancy, we still found Section 3 gave much higher levels of health spending than Section 10 – roughly six times as much spending on medicine and health care fees.

In the end, we decided to use the Section 10 data on health care spending rather than the Section 3 data that was used in the government's own poverty profile (Federal Office of Statistics, 2005). There were several reasons for this choice:

1. Section 3 used a shorter recall period. Health spending may fluctuate a lot, making the annualized total from any 30-day period unreliable.
2. Section 3 includes some private health spending not paid for by the household.
3. Section 3 includes transport costs, which are already supposed to be captured in the transport expenditure items in Section 10.
4. Section 10 gathers data on health expenditure in the same way that all other household expenditures are gathered (it should therefore be more consistent with them).
5. The overall share of health spending implied by using Section 3 seemed implausibly high (14 per cent) by comparison with figures for other African countries.

We created a new adjusted household expenditure aggregate, using the Section 10 data on health expenditure rather than that in Section 3. For this adjusted expenditure, we also imputed food spending for the 285 households (1.5 per cent of the total) that reported no food spending. The imputation was based on a regression of the log of food expenditure per capita on the log of non-food expenditure per capita (and its square) together with controls for demographics, month and location of interview.

However, the adjustment also meant that the poverty line had to be adjusted. The poverty line used in the official poverty profile estimated food expenditure requirements and then marked up non-food requirements, based in part on the Section 3 estimates of health spending. We had to recalculate the non-food

requirements, based on the Section 10 estimates of health spending. To do this, we followed parallel procedures to those in the official poverty profile. We found a household whose adjusted expenditure was just equal to the food poverty line (21,018 naira per adult equivalent) and then calculated the average non-food spending of the 100 households ranked above and below that household. This gave an estimated non-food requirement of 6866 naira and consequently an overall poverty line of 27,886 naira per annum (97 per cent of the older poverty line of 28,758 naira). These poverty lines are around one third higher than the 'dollar a day' poverty line, which equates to 21,068 naira (Federal Office of Statistics, 2005). This assumes that in 2003, there were 59.2 naira to a PPP dollar, as opposed to the actual exchange rate of 133 naira to a dollar.

Taking the adjusted expenditure per adult equivalent aggregates and the adjusted poverty line led to a poverty headcount of 57.6 per cent compared to the 53.8 per cent obtained in the official poverty profile.

Appendix Table A14.A1 FAO Adult Equivalence Scale

Age	Male	Female
Under 1 year	0.27	0.27
1–3 years	0.45	0.45
4–6 years	0.61	0.61
7–9 years	0.73	0.73
10–12 years	0.86	0.78
13–15 years	0.96	0.83
16–19 years	1.02	0.77
20 and above	1.00	0.73

Appendix Table A14.A2 Classification of states into regions

Region	Constituent states
North West	Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto, Zamfara
North East	Adamawa, Bauchi, Borno, Gombe, Taraba, Yobe
North Central	Benue, Kwara, Nassarawa, Niger, Plateau, Kogi
South South	Akwa Ibom ^a , Bayelsa ^a , Edo, Cross Rivers ^a , Delta ^a , Rivers ^a
South West	Ekiti, Lagos, Ogun, Ondo ^a , Osun, Oyo
South East	Abia ^a , Anambra, Ebonyi, Enugu, Imo ^a
FCT	Federal Capital Territory

a Denotes an oil-producing state

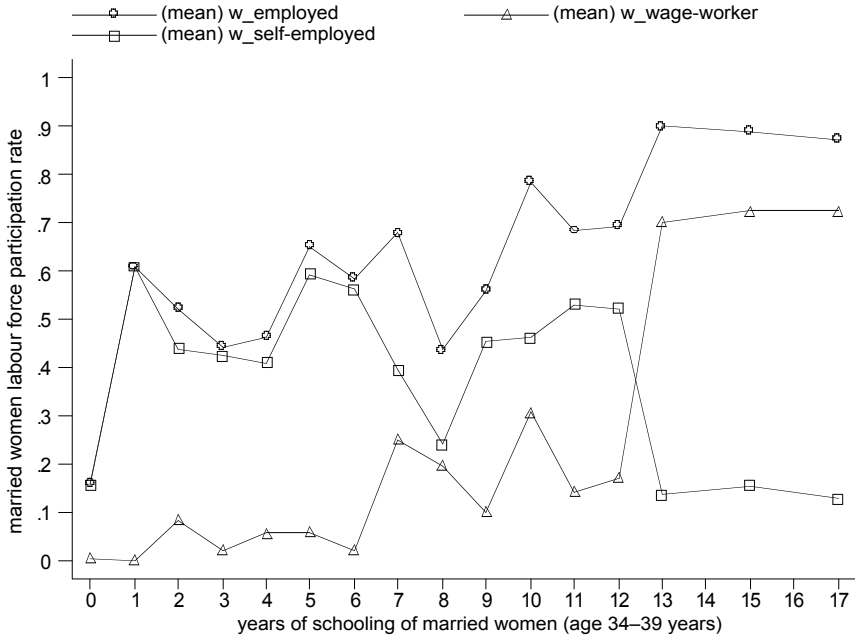


Figure A16.1 Labour market participation rate and years of schooling of married women (ages 35–39 years).

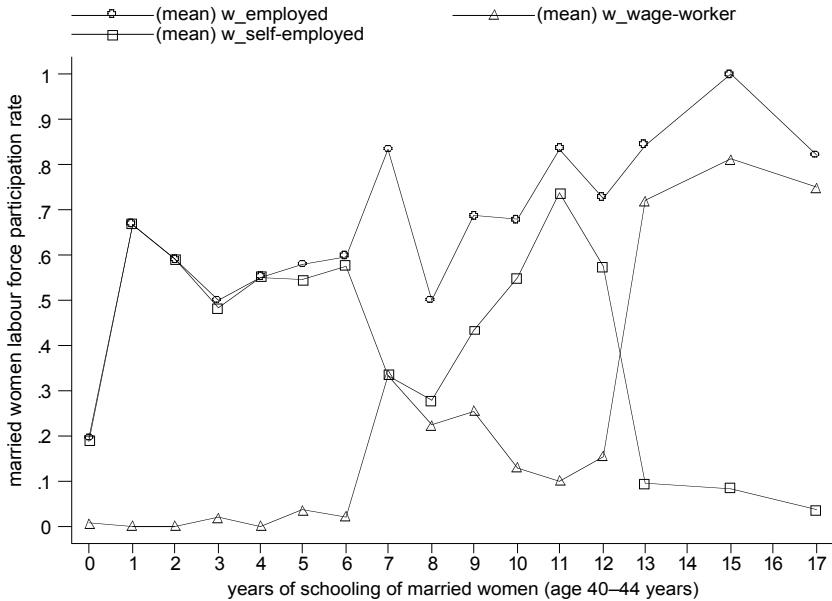


Figure A16.2 Labour market participation rate and years of schooling of married women (ages 40–44 years).

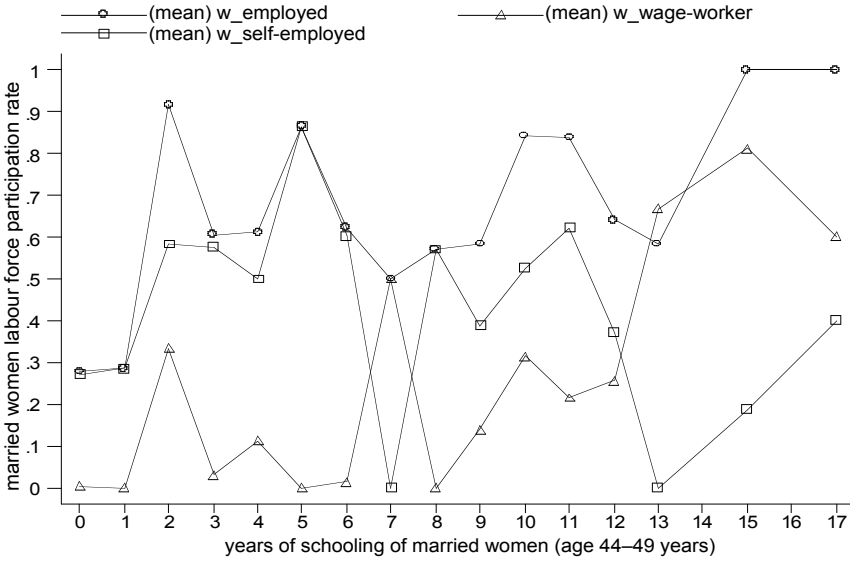


Figure A16.3 Labour market participation rate and years of schooling of married women (ages 44–49 years).

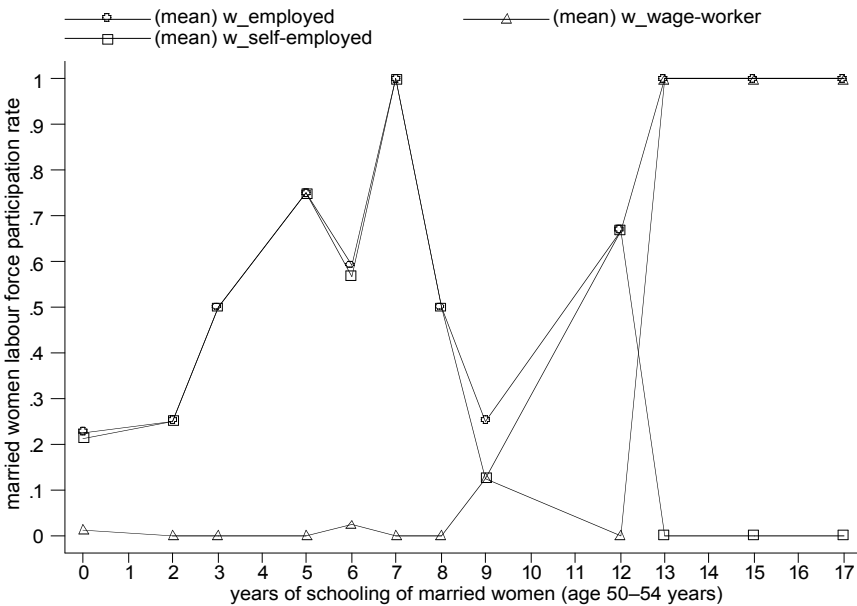


Figure A16.4 Labour market participation rate and years of schooling of married women (ages 50–54 years).

Table A16.1 Means and standard deviation of variables^a

	Wage workers	Self-employed	Total employment	Not employed	Total sample
Dependent variable					
Participation rate	0.041	0.258	0.301	0.556	
Explanatory variables					
Linear terms					
Wife's years of primary schooling	5.52 (1.55)	3.64 (2.84)	3.91 (2.77)	0.914 (2.12)	1.91 (2.74)
Wife's years of secondary schooling	4.46 (2.36)	1.16 (2.23)	1.63 (2.52)	0.289 (1.21)	0.63 (1.82)
Wife's years of post-secondary schooling	1.01 (1.54)	0.0273 (0.30)	0.169 (0.733)	0.0117 (0.207)	0.058 (0.440)
Wife's total years of schooling	11.0 (4.32)	4.82 (4.36)	5.71 (4.86)	1.22 (3.03)	2.62 (4.22)
Potential years of working experience of wife	18.6 (5.45)	21.4 (5.52)	21.0 (5.60)	4.32 (5.12)	20.6 (5.34)
Husband's total years of schooling	11.3 (4.38)	6.20 (4.83)	6.93 (5.09)	20.7 (2.08)	3.67 (4.89)
1997/98 year dummy	0.357 (0.479)	0.354 (0.478)	0.354 (0.478)	0.369 (0.482)	0.365 (0.481)
1998/1999 year dummy	0.307 (0.461)	0.286 (0.452)	0.289 (0.454)	0.289 (0.452)	0.288 (0.453)

Figures in parentheses are standard deviations.

^a Figures are for the subsample of women living with spouse and aged between 30 and 54 years.