

II. The Macroeconomy

A. SITUATIONER

The Philippine economy grew at a respectable pace over the period 2001-2003. This notwithstanding internal—fiscal deficit and peace and order issues, which were a concern for investors—and external challenges—geopolitical tensions in the aftermath of 9/11, slump in the electronics and information technology sector, severe acute respiratory syndrome (SARS), and continued increase in the price of oil. The gross domestic product (GDP), adjusted for price changes, steadily grew from 3.0 percent in 2001 to 4.7 percent in 2003 and to 6.3 percent in the first semester of 2004. Over the period 2001-2003, GNP expanded at an average of 4.5 percent while gross domestic product (GDP) rose on an average of 4.0 percent. GNP was on track of the MTPDP targets, while GDP expanded at a slower pace.

However, although growth has been respectable, this is more modest compared to other Asian countries.

The key growth driver was services, which expanded at an average rate of 5.1 percent over the period 2001-2003 and to a strong 6.9 percent in the first semester of 2004. The continued expansion in this sector is largely owed to the telecommunications sector as telecommunication companies continue to expand outside of Metro Manila. Added to this are the new investments in the call/contact centers, business process outsourcing (BPOs) and software development. The trade sector has also performed very well due to strong personal consumer spending, which

Table A: MTPDP 2001-2004 Targets vs. Actual Performance

	2001		2002		2003		2004	
	MTPDP	ACTUAL	MTPDP	ACTUAL	MTPDP	ACTUAL	MTPDP	LATEST ACTUAL
GNP (growth rate in %)	3.4	3.5	4.1-4.6	4.3	5.5-6.0	5.6	5.8-6.4	6.1 ^{2/}
GDP (growth rate in %)	3.3	3	4.0-4.5	4.3	5.4-5.9	4.7	5.7-6.3	6.3 ^{2/}
Inflation rate	6.0-7.0	6.1	5.0-6.0	3	4.5-5.5	3	4.5-5.5	4.8 ^{3/}
91-day T-bill rate	11.0-12.0	9.9	10.0-11.0	5.4	9.5-10.5	6	9.5-10.5	7.2 ^{3/}
NG Fiscal Deficit (as percent of GDP)	-4	-4	-3.3	-5.2	-2.3	-4.6	-0.9	-3.6 ^{2/}
Consolidated Public Sector (as percent of GDP)	-4.6	-4.6	-3.5	-5.5	-2.2	-5.5	-0.6	4.7 ^{4/}
Public Debt (as percent of GDP)	n.a.	120.1	n.a.	130.4	n.a.	137.5 ^{1/}	n.a.	n.a.
Current Account (as percent of GDP)	5.7	1.8	3.2	5.7	2.7	4.2	1.5	4.8 ^{2/}
Gross International Reserves (US \$ Bn)	14	15.6	14.4	16.2	15.3	16.9	16.6	15.94 ^{3/}
(no. of months in imports)	4.2	4.6	4.2	4.7	4.1	4.7	4	4.3
Employment generation (in thousand)	726-830	1703	874-953	907	1030-1116	566	1089-1193	1234 ^{5/}
Unemployment rate (in %)	10.73- 11.06	11.1	9.98-10.51	11.42	8.82-9.63	11.38	7.55-8.64	12.13 ^{6/}
Unemployment (ILO-based definition)	n.a.	7.53	n.a.	7.7	n.a.	7.35	n.a.	7.63

^{1/} Preliminary FY 2003 figure (which still includes intrasectoral debt)

^{2/} First Semester 2004

^{3/} As of January-September 2004

^{4/} As of 1st quarter 2004

^{5/} Jan.-July actual

^{6/} Jan-Apr-Jul 2004 Average

n.a. – not available

has been supported by the steady growth of the agriculture sector and remittances of overseas Filipino workers (OFWs) who are now being deployed in higher paying jobs as ICT professionals, teachers, and nurses/caregivers.

Agriculture rose at an average of 3.8 percent over the period 2001-2003, which further surged to 6.3 percent in the first semester of 2004. Favorable weather conditions complemented by government programs led to respectable growths in major subsectors,

Table B: Comparative GDP Growth Rates of Asian Countries (in percent)

COUNTRY	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004 S1
Philippines	0.3	2.1	4.4	4.7	5.8	5.2	-0.3	3.4	4.4	3	4.3	4.7	6.3
Malaysia	8.9	9.9	9.2	9.8	10	7.3	-7.4	6.1	8.9	0.3	4.1	5.3	7.8
Indonesia	7.2	7.3	7.5	8.4	7.6	4.7	-13.1	0.8	4.9	3.3	3.7	3.9	4.4
Thailand	8.1	8.4	9	9.2	5.9	-1.4	-10.5	4.4	4.8	2.1	5.4	6.7	6.4
Taiwan	7.5	7	7.1	6.4	6.1	6.7	4.6	5.4	5.9	-2.2	3.6	3.2	7.2
Hong Kong	6.6	6.3	5.5	3.9	4.3	5.1	-5	3.4	10.2	0.5	1.9	3.2	9.5
South Korea	5.4	5.5	8.3	8.9	7	4.7	-6.9	9.5	8.5	3.8	7	3.1	5.4
China	14.3	13.5	12.8	10.5	9.6	8.8	7.8	7	7.6	7.3	8	9.1	9.7
Singapore	6.7	12.3	11.4	8	8.1	8.6	-0.9	6.9	9.7	-2	2.2	1.1	10

Sources: Country Statistical Websites

Asian Regional Information Center (ARIC), ADB
2002 World Development Indicators (WDI)

such as palay and corn, fishery, poultry and livestock. Prices were also favorable during this period leading to improving farm incomes.

On the other hand, industry growth was more sluggish, expanding at a mere 2.8 percent over the period, although strengthening to 5.6 percent in the first semester of 2004. Growth has been dragged down by the steep cuts in public construction to control the deficit, as well as the difficulty of some manufacturing industries to compete under increasing global competition. One bright spot was mining, which grew at double-digit rates given favorable international metal prices.

The economy grew under generally stable macroeconomic conditions, although the fiscal problem emerged as a major threat to growth. Inflation was mild in 2001-2003 with demand expanding at a modest pace and cost-push pressures fended off by good agricultural harvest and stable transport and electricity prices as the purchased power cost was capped at PhP0.40/kWh in May 2002. However, inflationary pressures built up anew in 2004 due to higher world prices of oil and commodities used as production inputs like corn, wheat, fertilizer, and tin on account of the continuing geopolitical tensions in Iraq and huge demand from China. Inflation rose to 4.8 percent in January-September 2004.

The bellwether 91-day Treasury bill rate also stayed within target on account of modest inflation rates and an accommodative monetary policy to support economic recovery. However, interest rates have risen anew since 2003 due to the fiscal deficit and the pick up in inflation in 2004.

The fiscal deficit emerged as the key macroeconomic problem, as actual performance severely fell short of the targets. The consolidated public sector deficit (CPSD) surged to 5.5 percent of GDP while the National Government deficit rose to 4.6 percent of GDP. Among the 14 monitored nonfinancial government corporations (MNFGCs), the largest deficits were registered by the National Power Corporation (NPC), Light Rail Transportation Authority (LRTA), and the National Food Authority (NFA). The rising deficit pushed the public sector debt to balloon to 137.5 percent of GDP by 2003.

Despite the fiscal and domestic debt problem, the country's external balances have remained healthy although the sources of foreign exchange need to be diversified. The current account balance has been positive but this largely comes from remittances of OFWs rather than trade in goods. Recently, however, inflows from contact/call sources and other exports of services have contributed to higher foreign exchange inflows. Capital flows are mostly in the nature of portfolio flows rather than foreign direct investment. Thus, the competitiveness of the country's exports and investment climate has to improve to widen the sources of foreign exchange inflows and avoid external payments problems in the future.

Unemployment has stayed high, as the number of jobs generated has not been adequate to absorb the influx of labor entrants. Using the official methodology, the unemployment rate stood at 11.4 percent in 2003 despite the 3.2 million jobs generated

in 2001-2003. Using the International Labor Organization (ILO)-based definition, unemployment stood at 7.35 percent in 2003, which has barely changed since 2001. Unemployment would have to fall further to significantly reduce poverty.

To address the unemployment problem, the economy has to expand at a faster pace to address the aspects of growth that are undermining long-term sustainability. Growth has been largely consumer-driven with investment spending declining from 22.4 percent of GDP in 2001 to 19.5 percent in 2003. The decline in investment spending is traced to weakening foreign investments and the cutbacks in public construction as the government tried to keep the deficit under control, albeit unsuccessfully. Although the country's

Table C: Medium-Term Macroeconomic Targets*

	2004 Latest Actual	TARGETS						
		2004	2005	2006	2007	2008	2009	2010
Gross National Product	6.1 ^{1/}	5.2-6.0	5.5-6.4	6.5-7.5	6.9-7.8	7.0-8.0	7.2-8.2	7.2-8.2
Gross Domestic Product	6.3 ^{1/}	4.9-5.8	5.3-6.3	6.3-7.3	6.5-7.5	6.8-7.8	7.0-8.0	7.0-8.0
Inflation rate	4.8 ^{2/}	4.0-5.0	4.0-5.0	4.0-5.0	3.0-4.0	3.0-4.0	3.0-4.0	3.0-4.0
91-day T-bill rate	7.2 ^{2/}	7.5-8.5	7.5-8.5	7.5-8.5	6.5-7.5	6.5-7.5	6.5-7.5	6.5-7.5
Fiscal Balance (% of GDP)	-3.6 ^{1/}	-4.2	-3.6	-2.9	-2.0	-1.1	-0.2	0.0
Consolidated Public Sector Deficit (% of GDP)	4.7 ^{3/}	6.7	6.0	5.3	4.6	3.9	3.0	1.0
Exports of goods and services (US\$m)	20030 ^{1/}	43058	47452	52296	58204	65385	74282	84309
Of which: goods	18252	39853	43838	48222	53528	59950	67141	75869
Growth rate (%)	9.7	10.0	10.0	10.0	11.0	12.0	12.0	13.0
Imports of goods and services (US\$b)	21067 ^{1/}	47157	52730	58455	65336	73624	83510	94691
Of which: goods	18959	42372	47457	52677	58996	66663	75998	86639
Growth rate (%)	5.6	13.0	12.0	11.0	12.0	13.0	14.0	14.0
Current Account Bal (\$Mn)	1926	1483	1134	1029	879	678	735	785
% of GDP	4.8 ^{1/}	1.7	1.2	1.0	0.8	0.5	0.5	0.5
Gross International Reserves (\$US Bn)	15.94 ^{2/}	15.0	16.0	17.83	19.79	22.54	26.84	31.86
Poverty Incidence (families) (%)	28.4 ^{4/}	25.69-26.04	24.35-25.04	22.93-23.95	21.61-22.89	20.31-21.84	19.04-20.78	17.88-19.81
Subsistence Incidence (families) (%)	13.1 ^{4/}	12.68-12.94	11.90-12.40	11.22-11.92	10.64-11.51	10.06-11.07	9.48-10.62	8.98-10.23
Unemployment rate	12.13 ^{5/}	12.1	11.9	11.6	11.1	10.4	9.7	8.9
Memo items:								
Dubai oil price, avg (\$/bl)	32.99 ^{2/}	33.44	32.96	29.17	28.61	28.04	28.04	28.04
P/\$ rate	55.96 ^{2/}	54-56	55-57	55-57	55-57	55-57	55-57	55-57

* In growth rates, unless otherwise stated

^{1/} As of 1st semester, 2004

^{2/} As of January-September 2004

^{3/} Preliminary Q1 2004

^{4/} As of 2000 FIES

^{5/} Jan-Apr-July average, 2004

current account remains in a surplus, indicating that savings is still adequate to finance investment activity, national savings has been low compared to our Asian neighbors, hovering at an average of 20 percent in 2001 to 2003 while the savings rate of our neighbors like Thailand and Malaysia average 30-40 percent. The low savings rate would pose a constraint once investment activity accelerates.

Growth strategy

Addressing the fiscal problem is primary and essential to achieve a sustained and accelerated pace of growth (*Chapter 7: Fiscal Strength*).

If the fiscal problem is not addressed, growth will considerably be much lower on account of a severe erosion in investors confidence, which could create balance of payment difficulties, as well as deep cuts in government spending if the government will seek to achieve fiscal balance by 2010 in the face of lower revenue growth. The lack of progress on the fiscal front will also increase the risk premium on interest and exchange rates and undermine long-term investment. The national government is aiming to balance the budget by 2010 and to reduce the CPSD to 1.0 percent by 2010. Underpinning the fiscal program are measures to boost the revenue to GDP ratio to 18 percent in 2010 from 14.6 percent in 2004, mainly from higher revenue collection efficiency. A credible fiscal program will lead to a positive shift in investor and creditor confidence. It will also boost growth by providing the fiscal resources to raise public infrastructure spending from 2.6 percent of GDP in 2003 to 4.2 percent of GDP by 2010.

The government is targeting inflation to decline to 3-4 percent by 2007 based on expectations of a drop in global oil prices and a modest depreciation of the exchange rate. The inflation target is based on the assumption that Dubai oil prices will fall to less than US\$30 per barrel by 2006 as oil producers, such as Russia, increase supply and geopolitical tensions normalize in Iraq.

Moreover, the peso is to remain stable as market participants see fiscal reforms taking place. The peso will also be supported by strong capital inflows arising from an improvement in investor sentiment and higher receipts from exports of goods and services and remittances of OFWs, which will lead to a current account surplus of 0.5 percent of GDP.

The government is aiming to achieve its growth targets on account of strong investment spending and exports. Investment spending is targeted to increase to 28 percent by 2010 from around 20 percent in 2003, while exports of both goods and services are targeted to reach more than US\$50 billion by 2006.

To achieve these targets, the government shall pursue policies that address the root causes of declining competitiveness (*Chapter 1: Trade and Investment*). These include keeping the cost of food items and other wage goods at competitive rates through greater productivity; reducing transport and distribution costs through better transport and digital infrastructure and logistics, especially with the completion of the

nautical highway system (*Chapter 6: Infrastructure*); providing more competitive power rates through the elimination of cross-subsidy between industrial and residential users and other power sector reforms (*Chapter 11: Power Sector Reforms*); mobilizing and upgrading knowledge to increase productivity; and addressing corruption and simplifying business procedures (*Part V*).

In addition to policy reforms that will benefit all economic sectors, vigorous support is given to micro, small and medium enterprises (MSMEs) and agribusiness to decentralize development and address the problem of high unemployment and rural poverty. Government financial institutions (GFIs) are being tapped to enhance the access of MSMEs to credit, technology and marketing information (*Chapter 1: Trade and Investment*).

The growth strategy also rests on maximizing the use of the country's natural resources and geographical competitive advantage through wealth creating projects in mining, exploration of oil/gas wells, land reclamation, reforestation and maximizing the use of upland resources, and the development of Subic-Clark as the logistics-center in Asia.

Major infrastructure investments such as the nautical highway and roads in tourist destinations shall be financed mostly from build-operate-transfer (BOT)-type modes and nonrecourse project financing where the cash flows of a financially viable project will not require the proponent to seek government guarantee. Other innovative financing strategies and revenue-generating strategies include capturing the increase in property values arising from the development of major roads and highways such as the Subic-Clark-Tarlac Highway.

Given the fiscal constraints, the investment priority plan shall be focused on areas where the Philippines has natural and human resource advantage. These are identified as: IT-related industries, BPO/contact centers, tourism, fashion garment, jewelry, medical services/healthcare/wellness, electronics, automotive, agribusiness/mariculture, and shipbuilding.

This investment and export-led growth strategy is expected to boost the industrial sectors—mining, manufacturing, construction, and utilities. Industry growth is expected to rise from the modest rate of 4.4-5.2 percent in 2004 to 8.5-9.5 percent by 2010. It shall be the fastest growing sector. Construction is expected to receive a boost from higher infrastructure spending and the construction of new power plants to meet 5,200 megawatts of demand to avert a power crisis by 2010. The development of a Halal food industry in Southern Mindanao is also expected to kick up the food processing industry.

The services sector is seen to expand from 5.7-6.6 percent in 2004 to 7.2-8.2 percent by 2010. It shall benefit from the sustained growth of information and communications technology (ICT)-related businesses like contact/call centers and BPOs, which shall prop up the real estate industry. The government's support for tourism is seen to greatly boost private services. In addition, the financial and banking sector is seen to grow at a faster pace as business confidence improves and as savings products for small savers and OFWs are developed (*Chapter 8: Financial Sector*).

Agriculture is seen growing at around 4-5 percent on a sustained basis as the government works with the private sector to develop 2 million agribusiness lands and to increase agricultural productivity (*Chapter 2: Agribusiness*).

Employment and Poverty

With the domestic economy growing by at least 7 percent by 2010, total job generation for 2004-2010 will reach 9.7-11.5 million, averaging 1.4-1.6 million new jobs each year.

Services is expected to create the most jobs at 5.8-7.0 million, which will account for about 60 percent of total job generation. Next is agriculture, which will create 2.0-2.3 million net jobs with the development of 2 million hectares of agribusiness lands. Industry will create 1.9-2.2 million jobs.

Based on agency programs and estimates¹, by key employment generating industry, tourism is expected to create 3.0 million; agribusiness, 2.8 million; housing, 1.0 million; ICT, 0.8 million; exports, 0.7 million; and mining, 0.2 million.

For overseas employment, one million OFWs will be deployed each year.

Table D: Employment Prospects, 2004-2010 (in ‘000)

Year	Net Job Creation			
	Agriculture	Industry	Services	Total
2003 (actual)	81	144	341	566
2004 (January, April, July)	187	237	810	1234
2005	290-331	174-212	565-713	1029-1256
2006	298-340	249-291	717-896	1263-1527
2007	297-342	265-312	818-1016	1380-1669
2008	309-355	299-351	894-1114	1502-1821
2009	321-370	333-391	941-1184	1594-1945
2010	320-371	366-431	1009-1279	1695-2081
2004-10 (Total)	2021-2295	1923-2225	5753-7012	9697-11532
2004-10 (Ave.)	289-328	275-318	822-1002	1385-1647

Employment targets were based on the following 1993-2004 elasticity defined as the percent increase in employment level for every 1 percent increase in GDP level : Agriculture 0.34; Industry 0.75; Services 1.04.

Based on a 3.5 percent growth in labor each year, unemployment rate will reach between 8.9 percent in 2010.

Household poverty incidence will also decline from 28.4 percent in 2000 to 17.9 percent by 2010. As a fighting target, the government will aim to halve poverty by 2010.

Household subsistence poverty, in turn, will decline from 13.10 percent in 2000 to 8.98 percent in 2010. This shall enable the country to meet its target of halving poverty over a 15-year period from 1990 to 2015 based on the 20.4 percent subsistence poverty rate in 1991, one of its commitments to the United Nation’s (UN) Millenium Development Goals (MDGs).

¹ As presented by the Department of Trade and Industry to the Cabinet in 2004.

The poverty target assumes a reduction in population growth rate from 2.34 percent in 2000 to 2.11 percent in 2000-2005 and 1.93 percent in 2005-2010 as well as a significant reduction in inequality indicated by the decline in gini coefficient from 0.43 in 2000 to 0.35 by 2010. Inequality is expected to decline at a faster rate over this period due to the focus on a pro-poor and pro-employment growth strategy. Meanwhile, the local government units (LGUs) shall be encouraged to strengthen their reproductive health services programs to achieve a reduction in population growth.

The Plan's targets and programs shall also enable the Philippines to achieve the MDGs, which are not just top priority goals and targets. They are the country's commitments to ensure a brighter prospect for all Filipinos, especially the poor. Development efforts are thus directed towards achieving them.

**Table E: Medium-Term Macroeconomic Targets
(Growth rate, in percent)**

	TARGETS						
	2004	2005	2006	2007	2008	2009	2010
Gross National Product	5.2-6.0	5.5-6.4	6.5-7.5	6.9-7.8	7.0-8.0	7.2-8.2	7.2-8.2
Gross Domestic Product	4.9-5.8	5.3-6.3	6.3-7.3	6.5-7.5	6.8-7.8	7.0-8.0	7.0-8.0
Net Factor Income from Abroad	8.5-8.7	8.0-8.2	8.9-9.9	11.0-12.0	9.8-10.8	9.4-10.4	8.5-9.5
EXPENDITURE							
Private Consumption	5.0-5.7	4.7-5.3	5.0-6.0	5.3-6.3	5.5-6.5	5.5-6.5	5.5-6.5
Government Consumption	0.8-1.7	3.4-3.9	3.4-4.4	3.5-4.5	3.7-4.7	4.0-5.0	4.0-5.0
Investments	8.8-9.3	6.6-6.8	11.4-13.2	11.4-13.2	13.2-15.2	13.6-15.6	13.8-15.8
Fixed Capital	4.7-5.4	6.6-7.1	11.8-13.2	11.6-13.2	13.5-15.2	13.9-15.7	14.1-15.8
Construction	3.4-4.0	5.1-5.5	11.8-12.8	11.0-12.0	12.1-13.0	12.9-13.9	13.0-14.0
Public	0.8-1.7	2.0-3.0	14.9-15.9	12.6-13.6	10.5-11.5	11.0-12.0	9.5-10.5
Private	4.5-5.4	6.0-7.0	10.0-11.0	10.0-11.0	13.0-14.0	14.0-15.0	15.0-16.0
Exports	3.4-4.4	8.2-9.2	13.0-14.0	11.0-12.0	10.0-11.0	13.0-14.0	11.1-12.1
Imports	7.0-8.0	11.7-12.7	14.5-15.5	12.2-13.2	11.2-12.2	14.1-15.1	12.1-13.1
PRODUCTION							
Agriculture, Fishery & Forestry	4.0-5.0	4.2-5.2	4.2-5.2	4.0-5.0	4.1-5.1	4.2-5.2	4.0-5.0
Industry	4.4-5.2	5.4-6.4	7.2-8.2	7.3-8.3	7.8-8.8	8.2-9.2	8.5-9.5
Mining & Quarrying	10.0-10.9	15.0-16.0	15.0-16.0	12.0-13.0	12.0-13.0	12.0-13.0	12.0-13.0
Manufacturing	4.5-5.3	5.0-6.0	6.1-7.1	6.6-7.6	7.2-8.2	7.5-8.5	7.8-8.8
Construction	2.4-2.9	4.8-5.8	12.5-13.5	10.8-11.8	11.1-12.1	11.9-12.9	11.8-12.8
Utilities	3.3-4.3	4.1-5.1	4.3-5.3	4.5-5.5	5.0-6.0	5.2-6.2	5.5-6.5
Services	5.7-6.6	5.7-6.6	6.5-7.5	6.9-7.9	7.1-8.1	7.1-8.1	7.2-8.2
Transport., Comm., Storage	9.5-10.4	9.7-10.7	10.0-11.0	10.0-11.0	10.0-11.0	9.5-10.5	9.5-10.5
Trade	5.6-6.5	5.7-6.6	6.2-7.2	6.2-7.2	6.5-7.5	6.7-7.7	6.7-7.7
Finance	5.7-6.4	6.0-7.0	6.5-7.5	7.0-8.0	7.0-8.0	7.0-8.0	7.0-8.0
O. Dwellings & R. Estate	3.3-4.2	4.0-5.0	5.0-6.0	6.0-7.0	6.5-7.5	6.5-7.5	6.5-7.5
Private Services	5.5-6.4	6.3-7.3	6.5-7.5	6.8-7.8	6.8-7.8	7.0-8.0	7.0-8.0
Government Services	2.2-3.1	(1.9)-(1.1)	2.5-3.5	4.3-5.3	4.0-5.0	4.2-5.2	4.5-5.5
Source: NEDA							
Memo Items:							
Inflation rate, target	4.0-5.0	4.0-5.0 ^{a/}	4.0-5.0	3.0-4.0	3.0-4.0	3.0-4.0	3.0-4.0
Nominal GNP, in billion pesos	5042.5- 5095.1	5571.5- 5676.2	6157.0- 6385.9	6763.4- 7142.2	7441.7- 8000.8	8198.1- 8973.7	9032.3- 10065.9
Nominal GDP, in billion pesos	4648.8- 4732.4	5122.5- 5265.7	5656.4- 5922.3	6262.7- 6682.1	6951.0- 7557.8	7728.5- 8563.1	8601.5- 9711.6
Real per capita GDP, in pesos	13315.0- 13425.7	13698.0- 13939.6	14228.6- 14615.5	14805.4- 15350.6	15447.1- 16165.5	16143.8- 17052.1	16886.3- 18002.5
Nominal per capita GDP, in pesos	54552.6- 55533.9	58736.4- 60344.3	63375.4- 66355.0	68565.3- 73156.5	74360.4- 80851.5	80787.9- 89512.2	87857.6- 99197.1

^{a/} high-end of 4-5 inflation target was used to estimate nominal levels