ON ECONOMIC MODEL FOR NEW NEPAL

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Abstract

Transition from feudalism to full fledged democracy in Nepal has proven difficult because of the conflicts in the interest of political parties on the ground of ethnicity and regional basis. Only a cooperative game based on more scientific approach to economic modelling incorporating interests of all regions and ethnicity for a more decentralised and efficient dynamic market economy and unflinching commitment of political and economic participants on grow Nepal contract can generate a sensible solution and bring growth with redistribution to open Nepal's way for faster growth like that in her neighbouring countries China and India.

Keywords: conflict, growth, Nepal

JEL classification: D8, H1, O5

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Maoists singed the peace deal on November 8th, 2006 and entered the seven party alliance (SPA) after seven months of the peaceful April 2006 revolution in which millions people came to the street to eliminate the absolute monarchy who had snatched powers away from them and after two years of 12 point agreement that had been concluded between them and the major political parties including the Nepalese Congress and the CPN-UML in New Delhi. These agreements have proven decisive to end the decade old conflict that took more than 13000 lives in Nepal. Dynamism shown by Nepalese political forces against feudal king has somehow slowed down and caused despair among people as parties have not been able yet to hold the election for the Constituent Assembly, which now set to take place on April 10th, 2008 amidst serious protests and bottlenecks from the agitating parties demanding for autonomous status of the Tarai region. Given the complexity of the task involved in alleviation of poverty there is no other way to bring cooperation among all these political interests in Nepal except tying them into a "build and grow new Nepal contract" reflecting true aspirations of all Nepalese people. Only serious commitment to such agreement can lead towards full realisation of the dream of dynamic, independent, strong, ambitious and prestigious Nepal. Unfortunately the politics has dominated the national agenda much more than it should while the urgent need for economic development for reduction of poverty has remained neglected. It is surprising to note why Nepalese decision makers have forgotten the fact that Nepal need to tighten her belt to find a speedy rate of growth with redistribution comparable to her giant neighbours China and India. In terms of growth comparison, Nepal has already fallen behind from these neighbours by more than 50 years. It is time to make substantive decisions and to march ahead rather than to spend energy in merely procedural matters. Bold decisions

need to be taken based on more scientific approach to economic policy to bring faster growth and redistribute resources balancing the interest of workers, industrialists, business men and professionals involved in the nation building. Leaders need to follow long term vision and interest of the people.

Aspirations of People

Nepalese people are expecting a set of socio-economic programmes that would fundamentally upgrade their lives by providing them with commodities and services at better prices and better remuneration for labour and capital inputs that they sell to the market. Parents want to send their children to better schools that would train them well and make them more productive when they enter the job markets. Adults ones like to be free of anxieties, tensions and have peaceful atmosphere for doing their daily businesses. Old ones like to get some relief and proper health care. All of them like to have better access to drinking water and sanitation, better roads, more electricity, more phones and computers. Improvements in health services up and down the country are expected to make them less vulnerable to chronic and contingent diseases and for higher standards of public health. Education should gradually improve earnings youngsters, eliminate the gender bias in any job opportunities and generate higher standards of living.

Basic needs of each citizen should be provided generating a sense of social security under the competitive markets with social justice. Dynamics of economy should be driven by transparent and efficient financial markets reducing the transaction costs between savings and investments for greater degree of capital accumulation and the higher level of output. Nepal should act as a respectable global partner of development in ensuring the Millennium Development Goals (MDGs) with a reasoble commitment to clear environment free of global warming.

Had the election for the Constituent Assembly been held in time, the process to meet these high aspirations of people could have been continued. However the very slow process of political agreement among parties has generated frustration among the majority of people who seem to be very disappointed, confused, lost or misled. The Tarai crisis has added further fuel to aggravate this problem. It is difficult to understand for an astute observer on why there is so much uncertainly and why the rules of games not clear and transparent? Where is the visionary leadership that had steered people to revolution in April 2006? If providing services to the people is the ultimate objective of political parties why are they giving an impression of buying out more time for petty political disputes rather than focusing more energy on fundamental economic problems of poverty and growth? Why are they lagging behind to open up much anticipated door for peace and prosperity to avoid Nepal falling in trap of another civil conflict and genocides as seen in Darfur, Rwanda, Cambodia or Sri Lanka? This indecisive phase should be ended as soon as possible.

Policy makers, intellectuals and leaders need to consider following points:

1. Election of the Constituent Assembly should be held as soon as possible and a short, concise and scientific constitution of the Republic Nepal should be written to set an environment for long run economic growth. It should be realised that constitution alone cannot bring growth. It requires investment in physical and human capital. There are very successful democratic countries like the United Kingdom without a formally written constitution; USA has the shorted but most efficient constitution in the world; Indian constitution considered the longest in the world is not free from problems; despite having most democratic features in the Chinese constitution there is little exercise of political power by members of People's Congress who unquestionably and

unanimously agree to the proposals presented by the existing leadership. The energy of the Seven Party Alliance (SPA) should spend more in building Nepal's economy rather than just debating on constitution. Ignoring the massive and more urgent problem of economic growth and poverty alleviation would be very costly.

2. Nepal's neighbours, China and India, have been able to achieve very high rate of economic growth despite being populated by more than billions of people. About 25 years ago Nepal had slightly higher per capita income (in PPP $) than that of China and the same of India at around 900; now China's GDP (in PPP $) is 6 times more at 6000 and India's 3 times more at 3000. Stagnancy of average living standard in Nepal in last 25 years is very frustrating. A simple calculation shows that Nepal should grow around 14.6 per cent per year if she likes to catch up to China and about 11 per cent per year if she likes to catch up to India in 50 years' time. Given the fact that average growth record of Nepal has remained between 3-5 percent, it is obvious that serious tightening of belt is necessary if Nepal aspires to match living standards to its neighbouring countries. Why can more than 1200 million people in each of these neighbouring countries live in peace with smooth growth of economy but not the 27 million Nepalese? This is a puzzle in itself. It comes down to a question of trust and confidence among all relevant players in the nation. Nepal needs to adopt a policy highway soon to realise the ambition of speedy growth with redistribution.

3. Nepal has implemented ten plans so far all of which were based on top down approach in which the national level bodies pretended making plans for local bodies. This practice need to be reversed in the context of new Nepal –

particularly considering the growing demand for federal Nepal. Micro-founded macro approach should guide resource allocation. Households should be the basic units of economic planning. Each household should have their ambitions quantitatively expressed in their plans; communities should base their plans based on information of these individuals and the process should move up forward to the regional and national levels. Such process will ensure full participation of people in difficult decision regarding saving and investment, life cycle or inter-temporal modelling. Many issues such education loan, mortgage lending, systematic development of housing companies, migration of people from remote villages and communities to more convenient urban centres; need for community focused services will become obvious when such approach is taken. When families are centre of the economic policy and planning process the democratic federal republic set can only be contributory to rapid rates of economic growth.

4. Everyone in Nepal should have realised by now that the culture of trust is very important for economic growth. Trust reduces transaction cost in financial and labour markets. It makes agriculture, manufacturing mining and transportation sectors more efficient. Service industries such as tourism can thrive on trust. Mechanism should be built to enforce trust by designing heavy penalties for those who breach the trust and understanding. It is important that the major political forces, that have adopted multi-party parliamentary democracy be committed to the fundamental human rights and economic upliftment of all people. It is urgent that the Nepali Congress (NC), Communist Party of Nepal (Maoist), Nepal Communist Party (UML) agree on the basic model of the economy so that there is a smooth and uninterrupted

continuation of development activities no matter whichever of these parties remains in the power rather than repeating the age old rivalry and rebellion created among them by the corrupt feudal system with a policy of divide and rule and leaving them in cut throat competition for residual political power. Observers think that the peace deals concluded in the last two years are historic and Nepal has shown strengths for a cooperative solution of political conflicts. This cooperation should continue for developing comparative advantages of its economy in a very competitive global economy. True democracy, at the local, regional and national level among all parties and public institutions guarantees such commitment mechanism where decisions are based on logical and defendable criteria. In a democratic culture people expect healthy debates on issues and policies of national importance among ruling and opposition parties. Decisions need to be taken based on more scientific analysis of facts and figures and informed reasoning. Such practices create a national environment where people start thinking and solving their problems on their own with unhindered freedom of expression and choice of economic activities and being disciplined in choices by their resource constraints. Political stability obtained by balancing opportunities and constraints of all players in the game is essential for raising the rates of growth of employment, output, capital stock, investment that are instrumental in improving the living standards of majority of people and alleviation of poverty. Decisions on allocation of resources by the public or the private sectors should be scrutinised scientifically.

5. There are many contending models for this but for the analyses of structural transformation a multi-household multi-sectoral dynamic general equilibrium

model for policy analysis can be a very appropriate paradigm (Bhattarai (2007)). Focus of such a model should be in finding out the time path for the creation of wealth in a clear and consistent manner and in its equitable redistribution. Such outcomes should come by making the Nepalese economy more competitive in the global economy and making market more efficient and aim at alleviation of massive poverty within a reasonable time span.

Economic Model of New Nepal

Model for new Nepal should build poverty reduction strategy after a thorough appreciation of the production as well as the consumption sides of the economy and the structure of the markets, government and the foreign sectors. Model of Nepal built on this paper for this purpose consists of households grouped in ten categories, $h_1 \ldots h_{10}$, ranked according to their income status from poorest to the richest, firms grouped in nine different sectors $i_1 \ldots i_9$, a government that collects taxes from labour and capital income and on use of inputs and on household income and imposes tariffs on trade with the rest of the world sector. The growth of the economy and distribution of income among households depend on the capital accumulation process and growth rate of productivity of the labour force. More specifically household preferences are given by:

$$\text{Max } U_0^h = \sum_{t=0}^{\infty} \beta^t U_t^h \left(C_t^h, l_t^h \right)$$

Subject to

$$\sum_{t=0}^{\infty} R_t^{-1} \left[P_t (1 + t^{vc}) C_t^h + w_t (1 - t_l) l_t^h \right] = \sum_{t=0}^{\infty} \left[(1 - t_l) w_t L_t^h + (1 - t_k) r_t K_t^h + TR_t^h \right]$$

where C_t^h, l_t^h and L_t^h are respectively composite consumption, leisure and labour supplies of household *h* in period *t*, $R_t^{-1} = \prod_{s=0}^{t-1} 1/(1 + r_s)$ is a discount factor; r_s represents the real interest rate on assets at time *s*; t^{vc} is value added tax on consumption, t^l is labour income taxes, and K_t^h is the composite consumption, which is composed of sectoral consumption goods, P_t is the price of composite consumption (which is based on goods' prices), i.e. $P_t = \vartheta \prod_{i=1}^{n} \alpha_i p_{i,t}^{\alpha_i}$, and $C_t^h = \prod_{i=1}^{n} C_{i,t}^{\alpha_i^h}$.

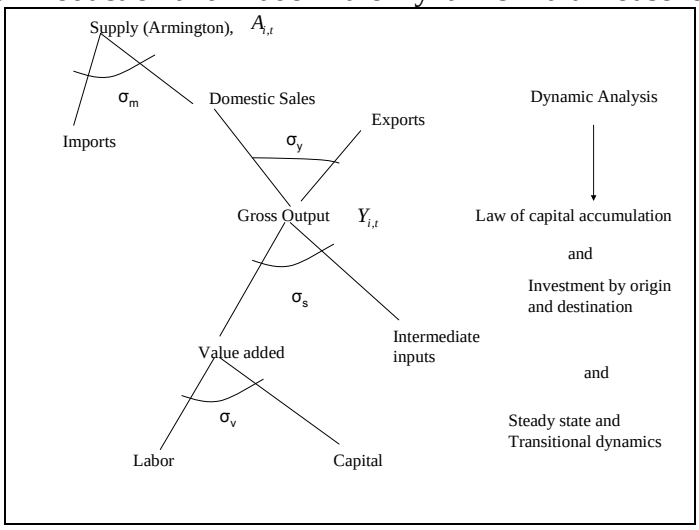
Industries of the economy are represented by firms that combine both capital and labour input in production and supply of goods and services to the market. Like households firms make production decisions on the basis of intertemporal optimisation:

$$\Pi_{j,t}^{y} = [((1-\delta_i^e) PD_{i,t}^{\frac{\sigma_y - 1}{\sigma_y}} + \delta_i^e PE_{i,t}^{\frac{\sigma_y - 1}{\sigma_y}})]^{\frac{1}{\sigma_y - 1}} - \theta_j^v PY_{j,t}^v - \theta_j^d \sum_i a_{i,j}^d P_{i,t}$$

where: $\Pi_{j,t}^{y}$ is the unit profit of activity in sector *j;* $PE_{j,t}$ is the export price of good *j* $PD_{j,t}$ is the domestic price of good *j;* $PY_{j,t}^v$ is the price of value added per unit of output in activity *j;* σ_y is a transformation elasticity parameter ; $P_{i,t}$ is the price of final goods used as intermediate goods; δ_j^e is the share parameter for exports in total production; θ_j^v is the share of costs paid to labour and capital; θ_j^d is the cost share of domestic intermediate inputs; $a_{i,j}^d$ are input-output coefficients for domestic supply of intermediate goods. Firms are grouped in nine different sectors including agriculture, manufacturing, Chemical, Metal, Gas-electricity and Water, Hotel, transportation and communication and Social services.

This is an open economy model in which goods produced at home and foreign countries are considered close substitutes following the Armington assumption, popular in the applied general equilibrium literature and the production process is given by a nested production and trade functions.

Figure 1
Structure of Production and Trade in the Dynamic Multi-household Models



The households pay taxes to the government and government returns part of this income to the poor households and spends rest of it to provide public services. The government collects taxes from labour and capital income and on use of inputs and on household income and imposes tariffs on trade with the rest of the world sector and VAT from commodities. Government revenue is collected from a composite tax rate on capital income from each sector, the *ad valorem* tax rate on final consumption by households, and on public consumption and ad valorem tax rate on investment, the taxes on labour income of the household, the tax on production, and the tariff on imports. The growth of the economy and distribution of income among households depend on the capital accumulation process and growth rate of productivity of labour force. The government uses taxes and spending strategy to alleviate poverty.

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$$REV_t = \sum_{i,h} t_i^k r_t K_{i,t} + \sum_i t_i^{vc} P_{i,t} C_{i,t}^h + \sum_i t_i^{vg} P_{i,t} G_{i,t} + \sum_i t_i^{vk} P_{i,t} I_{i,t} + \sum_{i,h} t_l wLS_t^h + \sum_i t_i^m PM_{i,t} M_{i,t} + \sum_i t_i^p P_{i,t} GY_{i,t} \quad (25)$$

where REV_t is total government revenue and t_i^k is a composite tax rate on capital income from sector *i*, t_l^{vc} is the *ad valorem* tax rate on final consumption by households, t_i^{vg} is that on public consumption and t_i^{vk} is the ad valorem tax rate on investment, t_l is the tax rate on labour income of the household, t_i^p is the tax on production, and t_i^m is the tariff on imports.

The steady equilibrium growth path of the economy is determined in terms of the interest rate, discount factor and relative prices of goods and factors in which the excess demand for goods and factors are eliminated and resource balance condition holds for the whole economy, each household, the government and rest of the world sectors in each period and over the model horizon. It also shows how the income of each type of household evolves over time as a function of the relative prices of goods and share of households in income. Government policies and transfers can alter this equilibrium. Model contains hundreds of thousands of variables and thousands of equations to express demand and supply in goods and factor markets.

It is impossible to have an explicit analytical solution for a big model like this. Therefore numerical technique is used to solve the model. The steady equilibrium growth path of the economy is determined in terms of the interest rate, discount factor and relative prices of goods and factors in which the excess demand for goods and factors are eliminated and resource balance condition holds for the whole economy, each household, the government and rest of the world sectors in each period and over

the model horizon. It also shows how the income of each type of household evolves over time as a function of the relative prices of goods and share of households in income (Figure 2). Government policies and transfers can alter this equilibrium.

Calibration of the New Nepal Model

The micro-consistency in the model is obtained by making the demand and supply sides balance for each sector in an input-output table maintaining zero profit in equilibrium, balancing the income of households to consumption plus saving, and matching total investment to total savings by the households and revenue and expenditure of the governments. The model is calibrated to the benchmark micro-consistent data contained in this Input-Output Table.

Input-Output Table of Nepal

Nine Sector Input/Output Table for 1999/00 at Producer's Price (In Million Rs.)

	agri	manuf	Chem	Metal	Gaselw	Hotel	Transp	Finance	SocServ	Sub-Total	Pcon	Gcon	Prfxinv	Gfxinv	Stock	Exp	Sub-Total	Total Output
agr	8694.1	16788.6	544.5	1778.5	0.0	193.6	0.1	18.8	16.6	28034.81	103889.36	0.00	538.38	0.00	44488.77	1942.67	150859.18	178893.99
Manuf	1985.1	6550.4	35.8	1457.0	9.9	211.4	46.9	171.6	2127.4	12595.40	72038.15	0.00	53.43	13.87	-29004.69	30752.80	73853.55	86448.95
Chem	3730.4	22.3	684.3	419.0	15.4	27.0	16.5	0.0	84.0	4998.92	3232.07	0.00	0.00	0.00	-4586.43	3696.72	2342.36	7341.28
Metal	900.1	87.8	25.0	13336.2	36.3	59.3	31.4	437.5	615.4	15529.01	10412.16	0.00	37756.71	25478.72	3741.50	9814.43	87203.52	102732.52
Gaselw	10.4	612.1	34.1	316.1	118.8	310.3	62.4	80.5	112.8	1657.32	1684.16	0.00	0.00	0.00	4823.23	0.00	6507.39	8164.71
Hotel	3195.0	4104.7	244.2	3335.4	84.2	4507.7	6841.8	746.8	1797.6	24857.42	20952.98	0.00	484.95	146.78	10552.47	14347.44	46484.62	71342.04
Transp	4805.3	6582.2	407.5	4566.2	103.8	4284.7	4506.1	666.8	2501.5	28424.08	15808.88	0.00	784.96	237.51	9603.27	6924.96	33359.59	61783.67
Finance	8294.7	4279.1	253.9	3062.6	1143.2	2902.2	6340.7	1383.3	1009.8	28669.54	9576.25	0.00	0.00	0.00	3043.02	0.00	12619.27	41288.80
SocServ	164.5	367.8	21.4	4204.3	20.0	404.4	146.2	449.7	1429.3	7207.70	7007.13	34579.00	0.00	0.00	-14416.39	21441.02	48610.76	55818.46
DOMESTIC INPUT PURCHASE	31779.50	39394.95	2250.70	32475.37	1531.57	12900.59	17992.05	3954.98	9694.48	151974.19	244601.13	34579.00	39618.43	25876.89	28244.76	88920.03	461840.24	613814.43
intimp	2147.48	14982.69	2190.90	19674.26	677.08	14673.06	14050.97	408.48	11881.46	80686.38	36282.38	0.00	4179.00	468.00	0.00	0.00	40929.38	121615.76
TOTAL INTER INPUT	33926.98	54377.64	4441.60	52149.63	2208.65	27573.64	32043.03	4363.46	21575.94	232660.57	280883.52	34579.00	43797.43	26344.89	28244.76	88920.03	502769.62	735430.19
Wages	46202.74	4516.98	221.65	20382.06	801.44	5274.29	11652.75	14234.58	29221.74	132508.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	132508.23
Depr	1721.62	1092.75	107.44	1784.01	717.71	1472.39	7482.37	1070.36	68.71	15517.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15517.36
Indtx	244.01	6097.31	1278.38	6664.20	61.06	659.39	459.64	6.35	218.52	15688.86	7063.48	0.00	813.57	91.11	0.00	1240.97	9209.14	24898.00
capital	96798.64	20364.28	1292.22	21752.61	4375.85	36362.32	10145.88	21614.06	4733.55	217439.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	217439.41
VALUE ADDED	144967.01	32071.31	2899.68	50582.89	5956.06	43768.39	29740.64	36925.35	34242.52	381153.86	7063.48	0.00	813.57	91.11	0.00	1240.97	9209.14	390363.00
GRAND TOTAL	178893.99	86448.95	7341.28	102732.52	8164.71	71342.04	61783.67	41288.80	55818.46	613814.43	287947.00	34579.00	44611.00	26436.00	28244.76	90161.00	511978.76	1125793.19

Reference: Adapted from from 25 sector input-output model of Nepal received from the NPC Secretariate, Kathmandu (cortesy Pushpa Shakya)..

Key parameters of the model based on previous modelling literature

Elasticity of substitution between labour and capital	3.0
Elasticity of substitution between labour and leisure	1.5
Elasticity of substitution consumption and leisure	0.5
growth rate of output	0.02
Benchmark interest rate	0.05
rate of depreciation	0.07
Elasticity of intertemporal substitution	1.1
Elasticity in government consumption	1.0

The sectoral composition of consumption by households is approximated by the net of tax and transfer income of households that are assumed to remain same across all

goods. In addition economic survey data is used for the estimates of the distribution of wage, interest rate and transfer income for households.

Policy Scenarios

The income redistribution effect in the model occurs through the differentiated tax rates of household income, value added taxes on consumption of goods and services, on labour and capital income. All these tax experiments constrain the amount of revenue and find the best optimal rates of taxes given the revenue requirement preset by the policy maker. In the above benchmark labour and capital input taxes are replaced by uniform rates of 0.3 and 0.2 in the counterfactual scenarios. Model solutions show how these reforms affect the growth rates of the various sectors of the economy and distribution of income and welfare among households.

All these model scenarios of the growing Nepalese economy are distorted by taxes in the benchmark that are removed under the counterfactual scenarios. It is obvious that tax reform alone cannot bring desired growth in income of households in developing country like Nepal which requires more investment in human capital and physical infrastructure. Piecemeal and patchy reforms will not be able to generate substantial growth enough to meet the aspirations of people. Wide ranging income and substitution effects through all markets need to be taken account.

The rich institutional structure contained in forward-looking CGE models allows one to experiment with many structural assumptions characterizing the particular economy under investigation. Therefore this framework is definitely an improvement over the fixed coefficient Harrod-Domar growth model or one sector neoclassical growth models or one sector endogenous growth model. So is it to the static and sequential dynamic CGE models available in the literature. Specification of

a multi-sectoral wedge in the cost of capital and its impact on the economy over the period is a new approach for analysis of distortions and liberalization of decentralized market economy. This is an important empirical tool to study long run growth and distribution in an inter-temporal and inter-sectoral framework.

The dynamic general equilibrium framework contained in the base-line model can be applied to analyze several other issues of the Nepalese economy particularly related to study the impacts of fiscal reforms or of liberalization of international trade, or of policies on labour markets and human resource development aimed at alleviation of poverty. It can be modified to study migration, regional and sectoral developments, and parallel markets. Implications of tax reforms on welfare of each category of household are given in Figure 2. Impacts on output, capital accumulation, investment, relative prices, interest rates, wage rates, imports, exports and public sector balances for entire model horizon is too much to present in the space available in this paper.

Figure 2: Redistribution Impacts of Policy Reforms in the Nepal Model

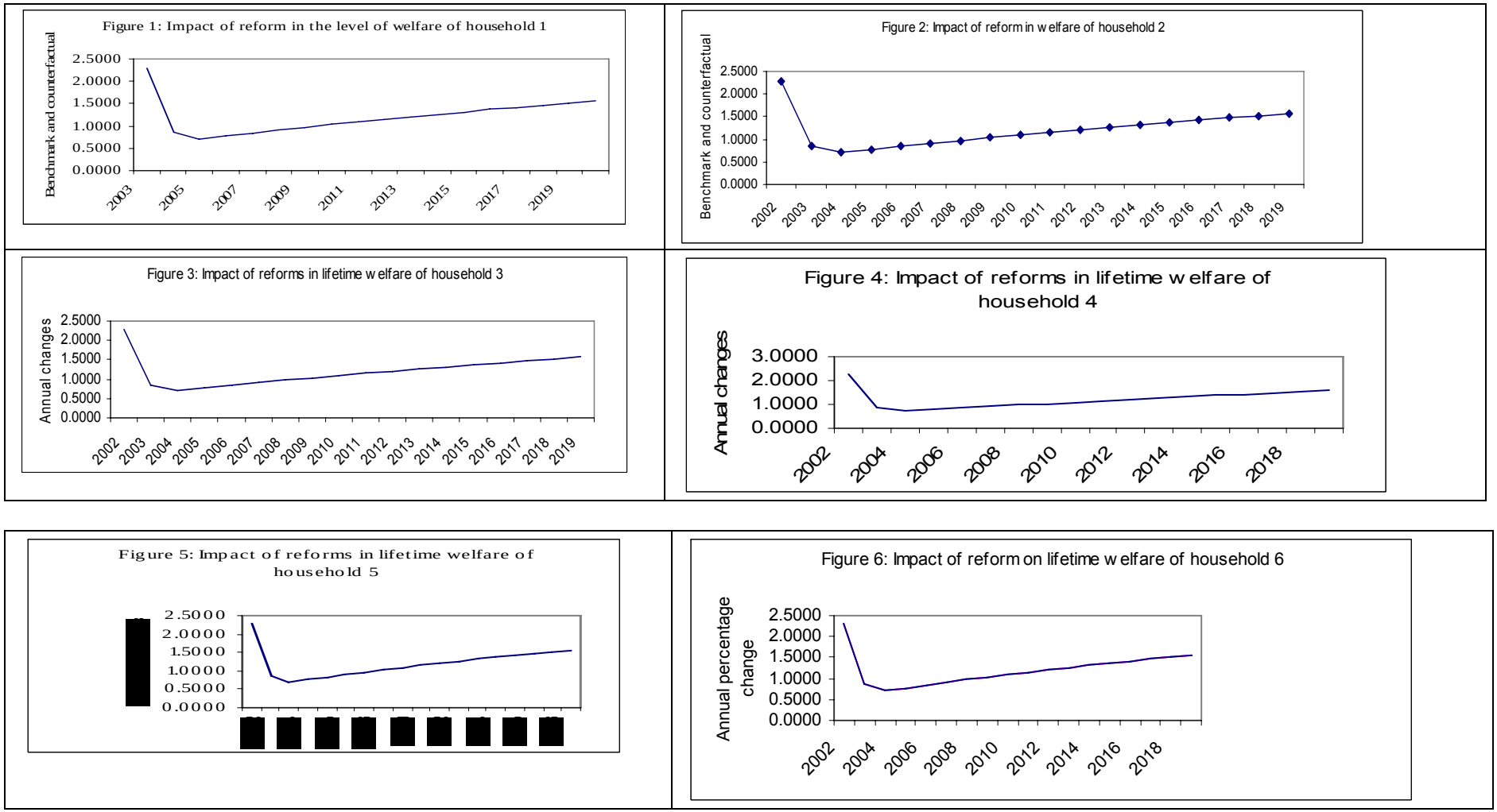
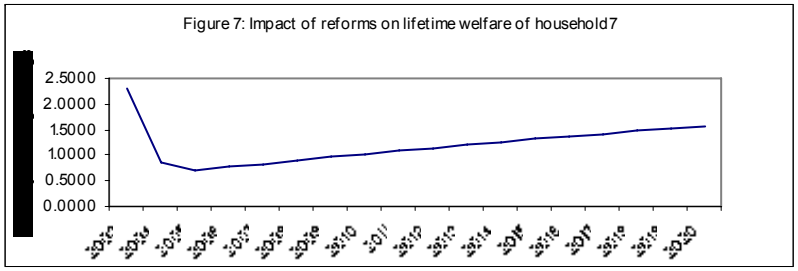
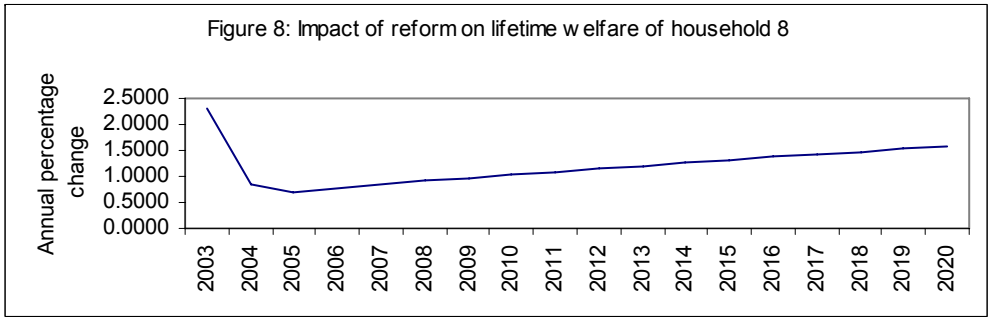
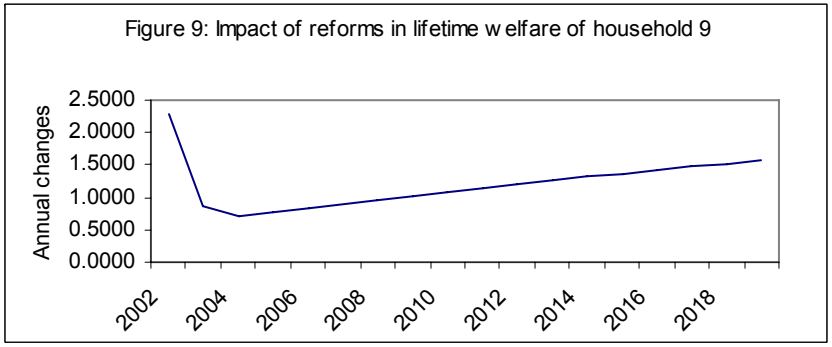
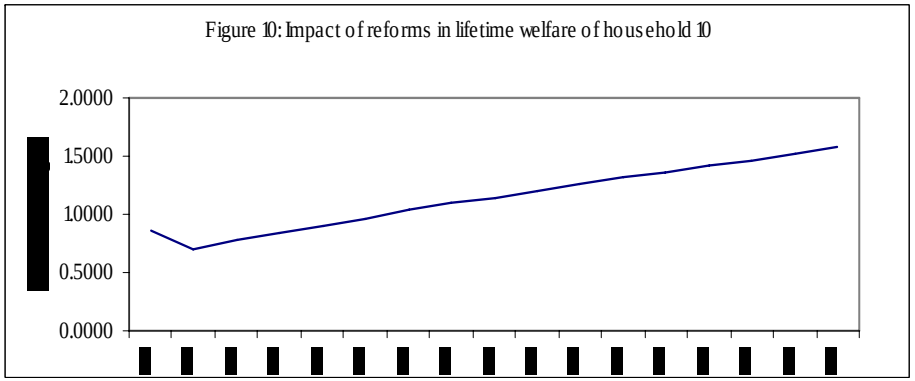


Figure 2: Redistribution Impacts of Policy Reforms in the Nepal Model (cont…)









Applications and Extensions

One major area of application of this model is the assessment of the role of fiscal policy in the growth and redistribution. How do financing public deficit by borrowing from the private sector or international lending agencies or donors or by borrowing from the central banks interact? What are the implications of different source of revenue generations? What the costs and benefits of public sector investment in education and health of population, in construction of roads, highways, airports, communication systems, and hydro-energy? Can they create basic infrastructure to improve environment for private firms to invest or adopt new technologies either in starting a new production process or replacing the old machines in existing production plants? Impacts of other components of public expenditure can equally be studied using the model.

More Elaboration on Financial System

Allocation between consumption and savings in the long-run models are guided by one price of risk-less capital that applies to all kind of assets of the households. In the short run, households allocate their savings on a mix of new assets, including currency, demand deposits, foreign deposits, and equity. Model can be modified to show how these portfolios depend on the rental rate of capital, inflation, the domestic interest rate, and the foreign interest rates? How does the segmentation of financial market in formal and informal sector matter for growth? What are implications of liberalisation on preferred borrowers in the formal sector and neglected borrowers in the informal markets? How does the financial sector interact with the exchange rate system? How do these aspects affect the growth and redistribution is the question where this model is most appropriate to provide systematic answers.

Labour Market and Man Power Development

Issues of poverty can be analysed through more elaborate specification of the labour market. There are many ways to improve the specification of the labour market in the model:

1) Making rural-urban and international migration subject to wage rate differentials between the destinations and origins.
2) Making migration as a function of the size of the skill intensive non-agricultural sector.
3) Making Nepal India migration subject to wage differentials and economic agreements in the spirit of the South Asian Preferential Trade Arrangements (SAPTA, 1995).
4) Making the subsistence sector as the absorber of the residual labour.
5) Allowing some rooms for self training of the labour employed in agricultural farms, increase in size of livestock, purchase and maintenance of tools.
6) Proper modelling of urban informal sector where poor households in the subsistence sector operate informal firms to provide services to rich urban households. They are involved in pulling carts or rickshaws, in portering or haircutting or shoe-shining or vending vegetables and fruit or other consumption goods from door to door and in maintaining small corner shops in an open market. How do these relate to growth and self-financing of activities in the subsistence sector are important for poverty reduction strategy.

Informal Sector and International Trade

Heavy tariff on international trade promotes an illegal trade mostly along the open Indian border. Such deflection in trade due to the difference in trade regime between India and Nepal in the past has been an issue in trade disputes. As an

example of the worst dispute one can take the trade embargo by India against Nepal from March 1989 to June 1990, when only two out of 15 trade points were not closed down from the Indian side. Similarly quota restrictions also have promoted the smuggling of goods through the informal markets, and rampant corruption. This model can capture the impacts of international trade policies on prices of commodities, levels of capital, investment, output and public revenues including incentive of producers and investors in the economy. Informal trade can be added in the model to study how trade interacts with poverty over the years.

Improvement in the data

Informal sector business is important in the Nepalese economy but the model is calibrated to the input-output table collected for formal sectors. It is desirable to complement this benchmark social accounting matrix (SAM) with an augmented SAM that incorporates informal sector in commodities, factors, financial and foreign exchange markets. The augmented SAM should contain enough information about the underground economic activities not captured in the official SAM.

Conclusion

Transition from feudalism to full fledged democracy in Nepal has proven difficult because of the conflicts in the interest of political parties on the ground of ethnicity and regional basis. Only a cooperative game based on more scientific approach to economic modelling incorporating interests of all regions and ethnicity for a more decentralised and efficient dynamic market economy and unflinching commitment of political and economic participants on grow Nepal contract can generate a sensible solution and bring growth with redistribution to open Nepal's way for faster growth like that in her neighbouring countries China and India.

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