CHAPTER 11

ECONOMICS

Doctoral Theses

01. ARORA (Priyanka)
Essays on Culture Market and Economic Development.
Supervisor : Dr. Mausumi Das
Th 24994

Abstract
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Culture has played a crucial role in the process of economic development. Economic sphere and culture interact with each other in both directions. This thesis is a collection of three essays where we explore the interlinkage between culture and the economy and analyze its implications for economic growth. n the first essay, we look at the bi-directional link between the two institutions of culture and market. We argue that cultural traits in the form of predisposition towards a certain occupation affect the actual occupational choices, some of which are growth-inducing and the occupational choices that individuals make determines the cost of the cultural transmission. We show a possibility of an economy can end up in a low growth trap that has been induced by culture. In the second essay, we focus on `culture of corruption' defined as the degree to which one is willing to accept corruption. We look at corruption in the form of bribe payment to obtain the license needed to operate as an entrepreneur who innovates and adds to future productivity. In a heterogeneous agent framework, we show that economies with more moral type agents, initially grow at a rate which is lower than one with fewer moral agents, but it eventually goes on a high growth path. We also show the possibility of having multiple dynamic equilibria. In the third essay, we interact the cultural transmission of the gender-based cultural norm with the education levels in a household decision-making problem in a non-cooperative setup. We show that as the education levels increase over time, gender norms can continue to remain biased against women. It is only after a threshold level of education is attained that the norms favour women.

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02. HAOKIP (Nehkholen)
Financial Development and Economic Growth in India.
Supervisors : Dr. Mausumi Das and Prof. Sabyasachi Kar
Th 24995

Abstract
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The purpose of this thesis is to examine the relationship between financial development and economic growth in India using both empirical and theoretical studies. We used monthly data from April 1993 to May 2017 to study the short run dynamics and long run relationship between financial development and economic growth. The linear cointergation results show that both stock market and banking sector has positive influence on economic growth in India. The threshold cointergation show that there is unidirectional causality running from financial development to economic growth up to May 2005 and there is bidirectional causality between economic growth and financial development thereafter. We study the interdependence between stock market and macroeconomic variables in India using monthly data from April 1991 to April 2016. The results from VAR (1) - BEKK (1, 1) model shows significant spillovers between stock market and domestic macroeconomic factors. Using Diebold and Yilmaz (2012) methodology, we found a mean spillover index of 7.3% and volatility spillover index of 9.2%. The net transmitter of both mean and volatility spillover is exchange rate while inflation remains the leading net receiver of volatility spillover. Lastly, we developed a theoretical model linking financial sector and real sector through the provision of liquidity. We find that in emerging economies like India where cash is the primary source of liquidity, the rate of growth of the real economy depends crucially on agents' expectation about the rate of inflation. There is a possibility of growth-inflation trade off as higher growth due to injection of higher liquidity in the economy is associated with higher rate of inflation. Therefore, it will be prudent not to ignore the role of the Central Bank as a provider of liquidity in such economies.

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03. JHA (Mrinalini)
Unequal Opportunities Economic Growth and Wage Inequality in India.
Supervisors : Prof. J. V. Meenakshi and Prof. Ashwini Deshpande
<u>Th 24993</u>

Abstract
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Equality of opportunity draws on a basic idea that outcomes like income, consumption, wealth, etc. are valued by individuals and attaining these outcomes are dependent on factors which may be grouped into two categories, namely, factors for which individuals cannot be held responsible, called 'circumstances' and those for which individual is held responsible, called 'efforts'. Equality of opportunity exists if distribution of outcomes is independent of circumstances. In my first research question we undertake an empirical exercise to estimate the share of inequality of opportunity in (a) earnings, (b) consumption expenditure, and (c) wealth, using nationally representative data from India. Within total earnings, we

look at three different sources of earnings – wage and salaried earning, farm earning, and business earning. Further, we track how these estimates have changed between 2004-05 and 2011-12. n the second research question we examine the relationship between growth and the share of inequality of opportunity among Indian states. We study the effect of the interstate variation in share of inequality of opportunity on the interstate variation in growth for a panel of seventeen major Indian states over a period of roughly two decades (1993-94 to 2011-12). For the third question we study the wage patterns that have emerged in the labour market in the post-reform era. Our motivation is built on the hypothesis that Indian labour market is characterized by workers who have benefitted differently in the post-reform period depending on their social, sectoral, or skill group. We track the changing wage patterns in the post-liberalization era between 1993-94 and 2017-18 particularly through the lens of the caste categories of workers, their skill classification, their education levels, and sector of employment. Furthermore, we also examine wages for workers with an intersection of these characteristics – specifically skills within caste groups, and skills within sectors of employment.

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04. KANDPAL (Deepika)
Essays on Economics of Social Status.
Supervisors : Prof. Dibyendu Maiti and Prof. Mausumi Das
Th 24998

Abstract
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The quest for social status is the driving force behind many human decisions. One such decision is the expenditure on conspicuous goods to signal social status to society. This thesis investigates the consequences of conspicuous spending using a theoretical model, and identify its determinants with the help of empirical analysis. By examining conspicuous goods that have positive spillover effects on progeny's human capital, the second chapter shows that status considerations along with myopic expectations and imperfect assortative mating can produce endogenous macroeconomic volatility. Moreover, the inability to invest in conspicuous goods may generate possibility of a poverty trap when status concerns are strong. Drawing on a nationally representative dataset for India, the third chapter investigates the influence of income distribution of the reference group on conspicuous consumption by households. Substantial variations are found in conspicuous spending across caste groups: Dalits and Adivasis spend 7% more on conspicuous goods than upper caste households. The empirical findings reveal that these differences can be attributed to the disparities in average income of the reference group, within-group income inequality and the share of peers with similar income. The study demonstrates that local measure such as the density of income distribution of households with similar income as the household, has a stronger influence on household conspicuous consumption decisions than global measures such as income inequality within the reference group. The fourth chapter attempts to analyse the consequences of change in the rate of property crime on household expenditure on conspicuous goods using a large scale household-level data and state-level crime statistics. A one-unit decrease in state-level property crime rate,

defined as the sum of robbery and burglary rate, is found to be associated with a 3% increment in conspicuous spending by households. The findings support the theoretical literature and empirical evidence from the U.S.

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1. Introduction 2. Status seeking network and macroeconomics volatility 3. Conspicuous spending income distribution and caste identity: evidence from a large scale data 4. Modesty is the best policy? Property crime and conspicuous consumption: evidence from India 5. Conclusion and bibliography.

05. PATHANIA (Kanika)
Inverted Duty Structure and Effective Rate of Protection: Theoretical and Empirical Analysis.
Supervisors : Prof. Aditya Bhattacharjea and Prof. Uday Bhanu Sinha
Th 24997

Abstract
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In recent years, various sections of Indian industry have complained that they are being harmed by an inverted duty structure (IDS). That is, tariffs on their imported inputs are higher than that on their outputs. In this dissertation, we first attempt to analyse whether there exists any rationale for the existence of such a tariff structure. If yes, does IDS always imply negative effective rate of protection (ERP), or is it possible for an industry to have a positive ERP despite IDS? It is important to analyse these scenarios because if the latter holds true, then IDS may not adversely affect the industry. However, if ERP becomes negative, then the industry is better off under free trade. The first two essays of the dissertation apply the theory of IDS and ERP in an imperfectly competitive two-country set up with endogenous tariffs, with a specific focus on the interaction of trade and competition-related policies in the second essay. Our results show that under certain conditions, IDS turns out to be an optimal policy for a welfare-maximizing government. However, IDS is harmful only if it leads to negative ERP, which is not necessarily the case. Essay 2 also analyses the effects of horizontal and vertical integration of the home country's firms on its tariff structure and firm profitability. The third essay offers new estimates of ERP for 24 Indian industries for the period 2000-2014. In line with our theoretical results, we find many instances of IDS in some of the selected industries, but none of them results in negative ERP. Cases of negative ERP are also found in a few sectors for which counterfactual value added under free trade is negative. Thus, governments, as well as industries, should really be concerned about ERP, and not IDS in specific sectors.

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1. Effective rate of protection and duty inversion 2. Duty inversipn and effective protection- A theoretical study 3. Horizontal and vertical mergers and effective rate of protection under optimal tariffs 4. Empirical estimates of inverted duty structure and effective rate of protection the case of India 5. Conclusion 6. Appendix.

06. SINDHWANI (Fiyanshu)
Competition Issues in the Indian Pharmaceutical History.
Supervisor : Prof. Aditya Bhattacharjee
Th 24997

Abstract
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In this thesis, we have analyzed three different competition issues in the Indian pharmaceutical industry. In our first analytical chapter, we study the price-cost-margin (PCM) of firms in the industry using 2SLS and difference GMM techniques. We find that competition in the industry is quite high and that advertising, marketing, and R&D expenditures have a significant role in determining PCM of firms in this industry. In our next issue, we have studied the market concentration and persistence in concentration at the molecule level using PharmaTrac dataset. We use Arellano & Bond (1991) and Blundell & Bond (1998) techniques for our dynamic panel data. Our study finds that for many molecules, the markets are highly concentrated with significant positive persistence in concentration. We also find that the classic negative relationship between market size and concentration does not hold in the pharmaceutical industry. Hence, we see that the competition at the level of molecules is quite low, for many molecules and markets forces do not work to keep the prices of medicines under check. In our last and final chapter, we have assessed the impact of drug price control in India, specifically Drug Price Control Order 2013 (DPCO-2013) on sales and prices of the regulated drugs, using PharmaTrac dataset by applying difference-in-difference methodology. We find that there has been no impact, positive or negative of DPCO-2013 on the sales volume of regulated formulations in the Indian market relative to their unregulated counterpart. However, we do find a significant negative impact of DPCO-2013 on the sales value of regulated formulations. This fall in sales value is coming from a decline in prices caused by DPCO-2013. Hence, we conclude that there is a trade-off in affordability and availability of medicines under price control.

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