Rising Inequality and Trends in Leisure

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This paper develops a growth model that explains the U.S. facts of rising aggregate leisure and increasing leisure inequality. Households derive utility from three sources: market produced goods, home produced goods and leisure. A key assumption is that leisure is a production activity requiring time and capital. Households allocate time and capital into each production activity. The dynamics are driven by activity-specific TFP growth and a spread in the distribution of household-specific market efficiencies. They combine to explain the time series and cross-sectional evolution whilst the economy remains on its aggregate balance growth path.

How do Average Hours Worked Vary with Development? Cross-Country Evidence and Implications

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How do average hours worked vary across the world income distribution? To answer this question, we build a new internationally comparable database of hours worked covering countries of all income levels. We document that average hours worked per adult are substantially higher in low-income countries than in high-income countries. This pattern holds for both men and women, for adults of all ages and education levels, and along both the extensive margin (employment rates) and intensive margin (hours per worker). Our results imply that labor productivity and welfare differences across countries are larger than suggested by differences in consumption per capita.

Investment Demand and Structural Change

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This paper provides a first step in understanding the effect of changes in the investment rate on the changes in the sectorial composition of developing economies. To do so we document three novel facts. First, the investment rate displays a distinct hump-shaped pattern with the level of development. Second, the investment rate is strongly correlated with the value added share of the industrial sector. And third, using input-output tables for a subset of countries and years, we show that investment goods are more intensive in value added from the industrial sector while consumption goods are more intensive in value added from sectors classified as services. Given these facts our hypothesis is that as the investment rate of the economy changes with development so does the relative demand of different goods. To measure the importance of this mechanism we estimate the

demand system of a standard three-sector neo-classical growth model in transitional dynamics. Our results show that the changes in investment demand are quantitatively important.

Skill-Biased Structural Change

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We document for a broad panel of advanced economies that increases in GDP per capita are associated with a shift in the composition of value added to sectors that are intensive in high-skill labor. It follows that further development in these economies leads to an increase in the relative demand for skilled labor. We develop a two-sector model of this process and use it to assess the contribution of this process of skill-biased structural change to the rise of the skill premium in the US, and a broad panel of advanced economies, over the period 1977 to 2005. We find that these compositional demands account for between 25 and 30% of the overall increase of the skill premium due to technical change.

Capital Allocation Across Sectors: Evidence from a Boom in Agriculture

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We study the allocation of capital across sectors and regions. In particular, we assess to what extent growth in agricultural profits can lead to an increase in the supply of credit in industry and services. For this purpose, we identify an exogenous increase in agricultural profits due to the adoption of genetically engineered soy in Brazil. The new agricultural technology had heterogeneous effects in areas with different soil and weather characteristics. We find that regions with larger increases in agricultural profitability experienced increases in local bank deposits. However, there was no increase in local bank lending. Instead, capital was reallocated towards other regions through bank branch networks. Regions with more bank branches receiving funds from soy areas experienced both an increase in credit supply and faster growth of small and medium sized firms.

Marriage Sorting, Resource Allocation and Aggregate Productivity

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We study the implications of efficient marital sorting on resource (mis)allocation in Nigeria. This is relevant in the context of Africa where social norms are associated with early marriages and a less developed divorce laws, which potentially prevent the efficient sorting of spouses. First, we provide direct empirical evidence of more efficient sorting for first marriages with higher age at marriage of women and for couples that re-marry. Second, we construct a model of marital sorting that replicates the marriage patterns (age at marriage and divorce rates) and the factor input allocations (land and capital) that we observe within and across household farms in Nigeria. We are currently quantifying the effects of social norms (age at marriage and divorce law) on resource allocation and agricultural productivity. To map the model to the data we use unique person-level managerial data for the agricultural households of Nigeria.

Urban-Rural Wage Gaps in Developing Countries: Spatial Misallocation or Efficient Sorting?

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To what extent do the large urban-rural wage gaps in developing countries reflect a spatial misallocation of labor? We answer this question using a dynamic model of internal migration that encompasses two broad interpretations of these gaps. The first is that workers are misallocated across space due to uninsurable migration risk and incomplete markets. The second is that workers are heterogenous and sort efficiently across space given migration costs. We discipline the model quantitatively using evidence from a controlled migration experiment in Bangladesh and new survey evidence about migration opportunities for potential migrants. We then use the model to compare the status quo to the efficient spatial allocation of workers chosen by a benevolent planner. We conclude that urban-rural wage gaps mostly reflects efficient sorting, though improved access to financial markets would still reduce misallocation and improve living standards substantially for some workers.

Endogenous Sector-Biased Technological Change and Industrial Policy

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We build a model of structural transformation with endogenous sector-biased technological change. We show that if the return to specialisation is larger in the goods sector than in the service sector, then the equilibrium has the following properties: aggregate growth is balanced; structural transformation takes place from goods to services; the service sector receives more innovation but the goods sector has more productivity growth. We show that compared to the efficient allocation the laissez-faire equilibrium has too much labor in the goods sector. This suggests that optimal industrial policy should aim to increase the pace of structural transformation.

Demand-Pull, Technology-Push, and the Sectoral Direction of Innovation

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We develop a multi-sectoral endogenous growth model in which the direction of innovation across sectors is endogenous. Our model provides a general equilibrium framework to analyze the classical demand-pull versus technology-push drivers of innovation. A robust prediction that emerges from our analysis is that innovation growth should be higher in more income-elastic sectors. We test this prediction using the universe of U.S. patents and firm-level R&D data from the census of manufacturers and find empirical support for this result.

Trade, Finance and Endogenous Firm Heterogeneity

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We study how financial frictions affect firm-level heterogeneity and trade. We build a model where productivity differences across monopolistically competitive firms are endogenous and depend on investment decisions at the entry stage. By increasing entry costs, financial frictions lower the exit cutoff and hence the value of investing in bigger projects with more dispersed outcomes. As a result, credit frictions make firms smaller and more homogeneous, and hinder the volume of exports. Export opportunities, instead, shift expected profits to the tail and increase the value of technological heterogeneity. We test these predictions using comparable measures of sales dispersion within 365 manufacturing industries in 119 countries, built from highly disaggregated US import data. Consistent with the model, financial development increases sales dispersion, especially in more financially vulnerable industries; sales dispersion is also increasing in measures of comparative advantage. These results can be important for explaining the effect of financial development and factor endowments on export sales.