
This paper considers a model of growth and income distribution in the presence of imperfect capital markets. Moral hazard on the part of borrowers is the source of both capital market imperfections and the emergence of persistent income inequalities. This model generates a Kuznets curve: in early phases of growth inequalities increase but in later stages they decrease. The results show that when the rate of capital accumulation is high enough, the economy converges to a unique steady state with a unique invariant income distribution.


In this paper, the authors examine Thailand's macroeconomy and microeconomy for the period 1988 to 1997 to assess the extent to which the country’s mix of macroeconomic and financial sector policies contributed to its economic crisis in 1997. They conclude that the crisis was fundamentally one of private sector debt, rooted in private behavior that affected the magnitude and composition of investment and how it was financed. According to the authors’ view, the Thai crisis was not caused by excessive sovereign borrowing. Financial sector weaknesses (such as inadequate regulation and supervision, implicit deposit insurance, and concentrated ownership structures, among other factors) - combined with liberalization of the financial sector and capital accounts, increased vulnerability by creating incentives for risk-taking by financial institutions. Also, this paper suggests that many macroeconomic fundamentals were strong, but the combination of tight monetary policy and an inflexible exchange rate created strong incentives for residents to expose themselves to excessive foreign exchange and liquidity risks.


This article develops a general model of lending in the presence of endogenous borrowing constraints. Borrowing constraints arise because borrowers face limited liability and debt repayment cannot be perfectly enforced. In this model, the dynamics of debt are closely linked with the dynamics of borrowing constraints (dynamic consistency requirement). This feature is not guaranteed in models of exogenous borrowing constraints, where the ability to raise short-term capital is limited by some pre-specified function of debt. The authors characterize the optimal default-free contract and derive implications for firm growth, survival, leverage, and debt maturity. Finally, they find that the model is qualitatively consistent with stylized facts on the growth and survival of firms.

A model of economic development is developed in this paper, where the importance of financial differences caused by limited enforcement can be measured. In this model, economies where enforcement is poor direct less capital to the production sector and employ less efficient technologies. The authors also perform calibrated simulations, which reveal that the resulting effect on output is relatively large. In addition, the model predicts that the average scale of production should rise with the quality of enforcement. Finally, the authors find that the importance of limited enforcement rises with the importance of capital in production.


In this paper the authors explain what they think economists may be able to learn from the micro approach to productivity and employment and assess some of the problems of this approach. Reviewing several recent studies, the authors find that firms producing similar outputs reveal deeper causes of differences in productivity across countries. They find that such differences often depend on patterns of organization within firms, the motivations of managers and the like. Consequently, they also find great difficulty to build productivity comparisons from the bottom up with firm- and industry-level data. However, these results should also serve to demonstrate the potential benefits of a micro-based approach to productivity growth. In particular, looking at patterns across a range of case studies suggests which factors will determine how soon and how quickly managers will act to close these observed productivity gaps.


This paper shows extensive evidence, culled from the micro-development literature, demonstrating that the assumption of optimal resource allocation fails. According to the authors, the key fact is the enormous heterogeneity of rates of return to the same factor within a single economy. They argue that this evidence poses problems for old and new growth theories alike. They also calibrate a simple model which explicitly introduces the possibility of misallocation into an otherwise standard growth model. In addition, the authors show that, in order to match the data, it is not enough to have misallocated factors: there also needs to be important fixed costs in production. Finally, the paper concludes by outlining the contour of a possible non-aggregate growth theory and reviews the existing attempts to take such a model to the data.


This article introduces a new database of indicators of financial structure and financial development across countries and over time. The database is unique in that it combines a wide variety of indicators that measure the size, activity, and efficiency of financial intermediaries and markets. It improves on previous efforts by presenting data on the public share of commercial banks, introducing indicators of the size and activity of nonbank financial institutions, and constructing measures of the size of bond and primary equity markets.
This paper examines whether financial development boosts the growth of small firms more than large firms and hence provides information on the mechanisms through which financial development fosters aggregate economic growth. The authors define an industry’s technological firm size as the firm size implied by industry specific production technologies, including capital intensities and scale economies. Using cross-industry, cross-country data, the results indicate that financial development exerts a disproportionately large effect on the growth of industries that are technologically more dependent on small firms. According to their view, this is evidence that financial development accelerates economic growth by removing growth constraints on small firms and also implies that financial development has sectorial as well as aggregate growth ramifications.


Two traditional explanations for structural changes are sector-biased technological progress and non-homothetic preferences. This paper integrates both into a standard growth model and quantitatively evaluates them vis-a-vis time series. Using this approach, the authors identify a set of puzzles for standard theories: (i) the model cannot account for the steep decline in manufacturing and rise in services in the later data; (ii) the standard model requires implausibly low elasticity of substitution across goods to match the consumption and output data; and (iii) the behavior of consumption and output shares differs significantly from that of employment shares. They find that models that incorporate home production, sector-specific factor distortions, and differences across sectors in the accumulation of human capital are promising avenues to amend the standard models.


In this paper, the authors develop a quantitatively-oriented framework to explain cross-country patterns in aggregate and sectoral TFP. They start by documenting that an important distinction between sectors is their average establishment size. For example, establishments in tradable and investment goods sectors operate at much larger scales than those in the non Tradable sector. In their model, sectors with larger scales of operation have more financing needs, and are hence disproportionately affected by financial frictions. Then, they perform quantitative exercises which show that financial frictions account for a substantial part of the observed cross-country patterns in TFP, both at the aggregate and at the sectoral level. This model also has novel implications for the impact of financial frictions on the relative scale between the tradable and the non-tradable sectors, which are shown to be consistent with the data.


This paper provides a micro-foundedness for the cross-country dispersion in investment distortions. Poor countries have lower PPP-adjusted investment rates and face higher relative prices of investment goods. It has been suggested that this happens either because these countries have a relatively lower TFP in industries producing capital goods or because they are subject to greater investment distortions. The authors first document that firms producing capital goods face a higher level of idiosyncratic risk than their counterparts producing consumption goods. In a model of
capital accumulation where the protection of investors’ rights is incomplete, this difference in risk induces a wedge between the returns on investment in the two sectors. They find that the wedge is bigger, the poorer the investor protection. Consequently, countries endowed with weaker institutions face higher relative prices of investment goods, invest a lower fraction of their income, and end up being poorer.


This paper documents regularities in the distribution of relative incomes and patterns of investment in countries and over time. The authors develop a quantitative version of the neoclassical growth model with a broad measure of capital in which investment decisions are affected by distortions. These distortions follow a stochastic process which is common to all countries. This model generates a panel of outcomes which they compare to the data. The authors find that in both the model and the data, there is greater mobility in relative incomes in the middle of the income distribution than at the extremes. The 10 fastest growing countries and the 10 slowest growing countries in the model have growth rates and investment-output ratios similar to those in the data.


In this article, the authors study a general equilibrium model in which entrepreneurs finance investment with optimal financial contracts. Because of enforceability problems, contracts are constrained efficient. They show that limited enforceability amplifies the impact of technological innovations on aggregate output. This implies that economies with lower enforceability of contracts are characterized by greater macroeconomic volatility. A key assumption for the amplification result is that defaulting entrepreneurs are not excluded from the market.


This paper investigates whether the predictability problem traces partly to micro phenomena that are undetectable with aggregated data. The responses of industrial exports to regime changes are notoriously hard to predict. The authors begin by developing a dynamic model of exporting behavior that allows for uncertainty, heterogeneous firms, and one-shot entry costs for firms breaking into foreign markets. They then fit the model to plant-level panel data on Colombian chemical producers. Using the results, the authors simulate aggregate export trajectories under alternative exchange rate regimes to quantify the effects of entry costs, regime credibility, and heterogeneity. The authors conclude that each proves to matter, but a substantial portion of the randomness in aggregate exports remains unexplained.


In this paper, the authors study the variability of business growth rates in the U.S. private sector from 1976 onwards. To carry out the study, they exploit the Longitudinal Business Database (LBD), which contains annual observations on employment and payroll for all U.S. businesses. This paper’s central finding is a large secular decline in the cross sectional dispersion of firm growth rates and in
the average magnitude of firm level volatility. This pattern holds in every major industry group. Employment shifts toward older businesses account for 27 percent or more of the volatility decline among privately held firms. Simple cohort effects that capture higher volatility among more recently listed firms account for most of the volatility rise among publicly traded firms.


In this paper, the authors propose a method for estimating individual age-saving profiles using household data. This method is applied to data from Taiwan and Thailand. Findings suggest that individual method yields results that are more favorable to the lifecycle model. These results imply that changes in the rate of economic growth may in some circumstances have large effects on the aggregate saving rate. However, the size and sign of these effects depends on the rate of economic growth and the rate of population growth, and in many cases the effect of growth on saving is small.


This article presents new data on the regulation of entry of start-up firms in 85 countries. The data cover the number of procedures, official time, and official cost that a start-up must bear before it can operate legally. The authors find that the official costs of entry are extremely high in most countries. Also, countries with heavier regulation of entry have higher corruption and larger unofficial economies, but not better quality of public or private goods. Countries with more democratic and limited governments have lighter regulation of entry. According to the authors’ view, the evidence is inconsistent with public interest theories of regulation but supports the public choice view that entry regulation benefits politicians and bureaucrats.


This paper provides a model of firm and industry dynamics that allows for entry, exit and firm-specific uncertainty generating variability in the fortunes of firms. It focuses on the impact of uncertainty arising from investment in research and exploration-type processes. In addition, the authors analyze the behavior of individual firms exploring profit opportunities in an evolving market place and derive optimal policies, including exit, in this environment. Then they add an entry process and aggregates the optimal behavior of all firms, including potential entrants, into a rational expectations, Markov-perfect industry equilibrium, and proves ergodicity of the equilibrium process. Finally, the authors show numerical examples to illustrate the more detailed characteristics of the stochastic process generating industry structures that result from this equilibrium.


This paper presents evidence that the spread between the marginal product of capital and the return on financial assets is much higher in poor than in rich countries. The author develops a model with costly intermediation. In this economy, individuals choose at each instant whether to work or to operate a technology. Entrepreneurs finance their business with their own savings and, if necessary, by borrowing from banks. He finds that in this framework intermediation costs are not equivalent to a tax on the return of capital. The equivalence fails because costly intermediation affects not only the
capital accumulation decision but also the occupational choice decision. In addition, he shows that intermediation costs have important effects on per capita output and average business size in the economy. Finally, the author concludes that taxing financial intermediaries can be a very bad policy for development.


This paper develops a theory of capital-market imperfections to study how the ability to enforce contracts affects resource allocation across entrepreneurs of different productivities, and across industries with different needs for external financing. The theory implies that countries with a poor ability to enforce contracts are characterized by the use of inefficient technologies, low aggregate TFP, large differences in labor productivity across industries, and large employment shares in industries with low productivity. The authors find that these implications are supported by the empirical evidence. This theory also suggests that entrepreneurs have a vested interest in maintaining a status quo with low enforcement.


In looking at whether a person has to be wealthy before he or she can start a business or not, this article finds that liquidity constraints are binding. Would-be entrepreneurs must bear most of the risk inherent in his or her venture. The authors show that wealthier people are more inclined to become entrepreneurs. They argue that even though wealthy people tend to make better entrepreneurs, the data reject this explanation. They then show data which suggest strong liquidity constraints: capital is essential for starting a business, and liquidity constraints tend to exclude those with insufficient funds at their disposal.


This study assesses the economic implications of land ownership security in rural Thailand. Using data from this country, the authors analyze several qualitative and quantitative characteristics and their incidence on land ownership security. This article also presents a conceptual model and literature review and is followed by separate discussions on the evolution of land rights in Thailand. A formal model of land acquisition and ownership security is presented to underlie the empirical discussions presented in subsequent chapters. In addition, the authors undertake an analysis of the benefits and costs of land titling. Finally, this study demonstrates and concludes that land ownership security has a substantial impact on Thai farmers’ agricultural performance.


Many government programs seek to provide more credit to the farm sector to increase agricultural productivity. If the marginal effect on productivity is small, those resources might be put to better use elsewhere. In this paper, the authors conducted an econometric analysis of the effect of credit on output supply which recognizes that credit markets are not necessarily at equilibrium - so that credit rationing and non-borrowing are both possible. They find that only about 37 percent of the farmers in the study area were constrained by inadequate formal credit. Also, the results indicate that
one additional Yuan of liquidity yielded 0.235 Yuan of additional gross value of output. According to the authors, these results suggest that for the area of China covered in the study, a good part of the short-term credit may actually be used for consumption and investment. Two main conclusions result: first, not all farmers, and sometimes only a minority, are constrained in their farming operations by inadequate credit; and second, greater supplies of formal credit will be diverted in part to consumption so the likely effect on output will be smaller than what one might expect if all funds are assumed to be used productively.


This paper attempts to understand how important financial development is for economic development by using a costly state verification model of financial intermediation. This model is calibrated to match facts about the U.S. economy, such as the intermediation spreads and the firm-size distributions for 1974 and 2004. This model is then used to study international data using cross-country interest-rate spreads and per-capita GDPs. The authors conclude that a country like Uganda could increase its output by 116 percent if it could adopt the world’s best practice in the financial sector.


This paper presents a model where both the extent of financial intermediation and the rate of economic growth are endogenously determined. Financial intermediation promotes growth because it allows a higher rate of return to be earned on capital, and growth in turn provides the means to implement costly financial structures. According to this understanding, financial intermediation and economic growth are inextricably linked. This model also generates a development cycle similar to the Kuznets hypothesis. In particular, in the transition from a primitive slow-growing economy to a developed fast-growing one, a nation passes through a stage where the distribution of wealth across the rich and poor widens.


Government policies that impose restrictions on the size of large establishments or firms, or promote small ones, are widespread across countries. In this paper, the authors develop a framework to systematically study policies of this class. They study a simple growth model with an endogenous size distribution of production units. Then, they parameterize the model to account for the size distribution of establishments and for the large share of employment in large establishments. The authors are particularly interested in the cost of the policies which distort the size of production units and what their impact on productivity measures, the equilibrium number of establishments and their size distribution. They find that these effects are potentially large.


This paper examines why some individuals survive as entrepreneurs and others do not and analyzes the growth of entrepreneurial enterprises, conditional on surviving. The focus is on the role of access to capital. The authors empirically try to respond to what extent liquidity constraints increase
the likelihood of entrepreneurial failure. Using data from 1981 and 1985 federal individual income tax returns, the authors identify those individuals who were sole proprietors in 1981 and determine the extent to which the decision to remain a sole proprietor was influenced by the magnitude of the inheritance-induced increase in liquidity. Their results are consistent with the notion that liquidity constraints exert a noticeable influence on the viability of entrepreneurial enterprises.


This paper builds a general equilibrium model of the job reallocation process. The authors calibrate the model using data on firm-level dynamics and evaluate the aggregate implications of policies that interfere with this process. They find that a tax on job destruction at the firm level has a sizable negative impact on total employment: a tax equal to 1 year’s wages reduces employment by roughly 2.5 percent. Findings also suggest that the cost in terms of consumption of this same tax is greater than 2 percent. The mechanism through which this welfare loss arises is apparently a decrease in average productivity, since this policy results in a decrease in average productivity of over 2 percent.


In this paper, the authors study the positive correlation between real investment rates and real income levels across countries. They find that it is driven largely by differences in the price of investment relative to output. Also, they observe that the high relative price of investment in poor countries is due to the low price of consumption goods in those countries. Investment prices are no higher in poor countries. Thus, the low real investment rates in poor countries are not driven by high tax or tariff rates on investment. They also find that poor countries appear to be plagued by low efficiency in producing investment goods and in producing consumer goods to trade for them.


This paper uses microdata on manufacturing establishments to quantify the potential extent of misallocation in China and India versus the United States. The authors measure sizable gaps in marginal products of labor and capital across plants within narrowly defined industries in China and India compared with the United States. They find that when capital and labor are hypothetically reallocated to equalize marginal products to the extent observed in the United States, they calculate manufacturing TFP gains of 30 to 50 percent to in China and 40 to 60 percent in India.


In this paper the authors use a general equilibrium model to study the impact of fully funding social security on the distribution of consumption across cohorts and over time. In this framework, in an initial stationary equilibrium with an unfunded social security system, the capital/output ratio, debt/output ratio, and rate of return to capital are 3.2, 0.6, and 6.8 percent, respectively. The authors they simulate several scenarios. Using a particular government-run funding scheme, they find that it delivers larger efficiency gains (in both the exogenous and endogenous price cases) than privatization, an outcome stemming from the scheme’s public provision of insurance both against life-span risk and labor income volatility.

This paper introduces the GGDC Productivity Level database, a database which provides comparisons of output, inputs and productivity at a detailed industry level for a set of 30 OECD countries. It complements the EU KLEMS growth and productivity accounts by providing comparative levels and follows it in terms of country and industry coverage, variable definition and basic data. As such, the level and growth accounts can be used together in comparative analyses of productivity trends. The methodology includes a number of refinements such as the use of sectoral output and input measures that exclude intra-industry flows; the application of multilateral indices; use of relative output prices from the production side and the use of the ex-ante approach to capital price measurement. Finally, the paper outlines the construction and contents of the database and presents some empirical results.


This paper explains and measures the sources of total factor productivity (TFP) by developing a method of growth accounting based on an integrated use of transitional growth models and micro data. The authors decompose TFP growth into the occupational-shift effect, financial-deepening effect, capital-heterogeneity effect, and sectoral-Solow-residuals. After applying this method to Thailand, which experienced rapid growth with enormous structural changes between 1976 and 1996, the authors find that 73 percent of TFP growth is explained by occupational shifts and financial deepening, without presuming exogenous technical progress. Expansion of credit is a major part. Finally, the paper also shows the role of endogenous interaction between factor price dynamics and the wealth distribution for TFP.


Using data on 80 countries between 1960 and 1989, this paper presents cross-country evidence consistent with Schumpeter's view that the financial system can promote economic growth. The authors present various measures of the level of financial development which are associated with real per capita GDP growth, the rate of physical capital accumulation, and improvements in the efficiency with which economies employ physical capital. Results show that the predetermined component of financial development is highly correlated with future rates of economic growth, physical capital accumulation, and economic efficiency improvements.


This paper provides a theory of selection with incomplete information that is consistent with the observation that within an industry, smaller firms grow faster and are more likely to fail than large firms. In this framework, firms learn about their efficiency as they operate in the industry. The efficient grow and survive; the inefficient decline and fail. A perfect foresight equilibrium is proved by means of showing that it is a unique maximum to discounted net surplus. The maximization problem is not standard, and some mathematical results might be of independent interest.

The literature on rural credit markets has generally assumed that households are rationed in their access to subsidized ‘formal’ credit. The validity of this assumption depends on the level of effective demand for formal credit, in turn a function of the demand for credit and its availability from ‘informal’ sources. This paper estimates the demand and the sector-specific costs of credit, and hence the extent of formal sector rationing, through an analysis of household participation in both the formal and the informal credit sectors. The results show that the extent of rationing is considerably less than what is conventionally assumed.


How do movements in the distribution of income and wealth affect the macroeconomy? In this paper, the authors analyze this question by using a calibrated version of the stochastic growth model with partially uninsurable idiosyncratic risk and movements in aggregate productivity. Their main finding is that, in the stationary stochastic equilibrium, the behavior of the macroeconomic aggregates can be almost perfectly described using only the mean of the wealth distribution. The benchmark model displays far less cross-sectional dispersion and skewness in wealth than U.S. data. However, an extension that relies on a small amount of heterogeneity in thrift does succeed in replicating the key features of the wealth data. Furthermore, this extension features aggregate time series that depart significantly from permanent income behavior.


This paper examines legal rules covering protection of corporate shareholders and creditors, the origin of these rules, and the quality of their enforcement in 49 countries. The results show that common law countries generally have the best protections, and French civil law countries have the worst legal protections for investors. German and Scandinavian civil law countries are located in the middle. The authors also find that concentration of ownership of shares in the largest public companies is negatively related to investor protections, consistent with the hypothesis that small, diversified shareholders are unlikely to be important in countries that fail to protect their rights.


This classic paper proposes a new theory of the size distribution of business firms. It postulates an underlying distribution of persons by managerial “talent” and then studies the division of persons into managers and employees and the allocation of productive factors across managers. The implications of the theory for secular changes in average firm size are developed and tested on U.S. time series.

This paper studies the effect of improved financial intermediation on the process of capital accumulation by augmenting a standard model with a general contract space. With the extra contracts, intermediaries endogenously begin using roscas, or rotating savings and credit associations. These contracts allow poor agents, previously credit rationed, access to credit. As a result, agents work harder and total economy-wide output increases; however, these gains come at the cost of increased inequality. Finally, the author provides sufficient conditions for the allocations to be Pareto optimal, and for there to be a unique invariant distribution of wealth.


This paper characterizes an equilibrium development process driven by the interaction of the distribution of wealth with credit constraints and the distribution of entrepreneurial skills. When efficient entrepreneurs are relatively abundant, a “traditional” development process emerges in which the evolution of macroeconomic variables accord with empirical regularities and income inequality traces out a Kuznets curve. In addition, if instead, efficient entrepreneurs are relatively scarce, the model generates long-run “distributional cycles” driven by the endogenous interaction between credit constraints, entrepreneurial efficiency and equilibrium wages.


Using U.S. data, some researchers have found a strong effect of the level of assets on the probability of being self-employed and suggest that this is evidence of liquidity constraints. In this paper, the authors follow up on this line of research. First, they replicate the methodology on French data to show that the empirical evidence is similar. Second, the authors develop a dynamic framework with uncertainty. The main theoretical prediction that can be drawn is that if the liquidity constraint is strong enough a future increase in the “entrepreneurial ability” of an agent, although raising expected future incomes, may induce her to lower her current consumption and raise her savings.


Recent progress in credit market imperfections research has left in its wake an array of individual models with seemingly conflicting results. This paper offers a road map. Using the same single model of credit market imperfections throughout, it brings together a diverse set of results within a unified framework. This framework include, among other things, endogenous investment-specific technical changes, development traps, leapfrogging, persistent recessions, recurring boom-and-bust cycles, reverse international capital flows, the rise and fall of inequality across nations, and the patterns of international trade. The author finds that the properties of equilibrium often respond non-monotonically to parameter changes, which suggests some cautions for studying aggregate implications of credit market imperfections within a narrow class or a particular family of models.

Recent theoretical literature in development economics has shown that non-convex production technologies can result in low-growth poverty traps. This article uses detailed microenterprise surveys in Mexico to examine the empirical evidence for these features at low levels of capital stock. The authors show that start-up costs are very low in some industries. They use semi-parametric methods to flexibly estimate returns to capital in microenterprises. They find much higher returns at low levels of capital stock than at higher levels, and this remains true after controlling for firm characteristics and measures of entrepreneurial ability. They little evidence of non-convexities, which is a significant finding because it suggests that access to start-up capital does not determine the ultimate size of the enterprise.


In this paper, the authors discuss from the microeconomic perspective how the production activities of Thai domestic commercial banks changed under the progress of the financial liberalization policy during the period from 1985 to 1994. Using microeconomic data on Thai domestic banks, the authors study the major business activities. In addition, they formally estimate the cost functions of Thai domestic banks and demonstrate that financial liberalization policies promoting market competition helped create more efficient business operations of banks. Also, the paper suggests that the medium-sized banks, which were the first to fail during the economic crisis in 1997, were deeply involved in unsound business operations and engaged in excessive lending.


In this book, the authors attempt to respond to this question: why isn’t the whole world as rich as the United States? Some say that the differences in the share of output invested by countries account for this disparity. Others are skeptic of this view. For example, some that disagree with the traditional explanation argue that differences in Total Factor Productivity (TFP) explain this phenomenon. These differences exist because some countries erect barriers to the efficient use of readily available technology. The purpose of these barriers is to protect industry insiders with vested interests in current production processes from outside competition. Were this protection stopped, rapid TFP growth would follow in the poor countries, and the whole world would soon be rich. The authors make use of historical examples and industry studies to illuminate potential explanations for income differences. This book uses aggregate data and general equilibrium models to evaluate the plausibility of alternative explanations.


This paper uses non-parametric, reduced form and structural techniques to distinguish the microeconomic foundations of two models of growth with increasing inequality using new data from rural and semi-urban households in Thailand. The authors estimate a limited commitment model and a moral hazard model. Both models emphasize the role of occupational choice and financial
constraints. The authors show evidence that the dominant source of credit market imperfections varies with wealth. For example, for poorer households limited commitment is the dominant concern. They also find that as wealth increases moral hazard gains importance.


This paper develops a model with decreasing returns and first-best credit. In this setting the long-run interest rate and aggregate output are uniquely determined, and wealth dispersion among individuals or firms is irrelevant. The authors show that introducing credit rationing into the Solow model modifies these conclusions. Multiple stationary interest rates and wealth distributions can exist because higher initial rates can be self-reinforcing through higher credit rationing and lower capital accumulation. They find that aggregate output is higher in steady states with lower interest rates because credit is better allocated. Finally, they show that short-run interest rate or distribution shocks can be self-sustaining and can have long-run effects on output through the induced dynamics of the wealth distribution and credit rationing.


This paper examines whether financial development facilitates economic growth by scrutinizing one rationale for such a relationship: that financial development reduces the costs of external finance to firms. Specifically, the authors ask whether industrial sectors that are relatively more in need of external finance develop disproportionately faster in countries with more-developed financial markets. They find this to be true in a large sample of countries over the 1980’s. Finally, the authors show this result is unlikely to be driven by omitted variables, outliers, or reverse causality.


In this paper, the authors formulate a version of the growth model in which production is carried out by heterogeneous establishments and calibrate it to U.S. data. In the context of this model, they argue that differences in the allocation of resources across establishments that differ in productivity may be an important factor in accounting for cross-country differences in output per capita. In particular, the paper shows that policies which create heterogeneity in the prices faced by individual producers can lead to sizeable decreases in output and measured TFP in the range of 30 to 50 percent. In addition, they show that these effects can result from policies that do not rely on aggregate capital accumulation or aggregate relative price differences. Finally, the authors claim that the model can be used to generate differences in capital accumulation, relative prices, and measured TFP.


A decomposition of aggregate labor productivity based on internationally comparable data reveals that a high share of employment and low labor productivity in agriculture are mainly responsible for low aggregate productivity in poor countries. Using a two-sector general-equilibrium model, this paper shows that differences in economy-wide productivity, barriers to modern intermediate inputs in agriculture, and barriers in the labor market generate large cross-country differences in the share
of employment and labor productivity in agriculture. The model implies a factor difference of 10.8 in aggregate labor productivity between the richest and the poorest 5 percent of the countries in the world, leaving the unexplained factor at 3.2. According to the authors, this two-sector framework performs much better than a single-sector growth model in explaining observed differences in international productivity.


This paper presents a theory of establishment size dynamics based on the accumulation of industry-specific human capital that simultaneously rationalizes the economy-wide facts on establishment growth rates, exit rates, and size distributions. This theory predicts that establishment growth and net exit rates should decline faster with size, and that the establishment size distribution should have thinner tails, in sectors that use specific human capital less intensively. Finally, the authors establish that there is substantial cross-sector heterogeneity in U.S. establishment size dynamics and distributions, which is well explained by relative factor intensities.


This book studies the new generation of game theoretic models that has dominated the industrial organization literature and contrasts them to the traditional empirical agenda. The author argues that despite the nature of many traditional results, there are theoretical predictions that turn out to be extremely robust to reasonable changes in model specification, and these results should be taken into account when looking for statistical regularities across a broad spectrum of different industries. These new methods are then applied to the study of twenty markets within the food and drink sector, in six developed countries. This analysis combines theory, econometric evidence, and various patterns of evolution in these industries and evaluates the strengths and limitations of a game-theoretic approach in explaining the evolution of industrial structure.


This article studies models that display growth with financial deepening and increasing inequality along the way to perpetual steady state growth. The authors provide a benchmark model, which is essentially a complete markets model but with transaction costs of financial intermediation. In addition they provide proof for stochastic dynamic programming for the case of unbounded return functions and perpetual growth with a non-convex transaction technology. Finally they calibrate the model and report quantitative predictions for Thailand during 1976 to 1996. The authors conclude that a discrepancy between the model and the data, suspect barriers to financial deepening as a cause, and evaluate the associated welfare loss.


This article offers a new method for the evaluation of financial institutions, one that combines socioeconomic survey data with appropriate accounting standards. A government-operated development bank in Thailand is found to be offering a risk-contingency or insurance system while being regulated as a more standard, loan-generating bank. Farmer clients experiencing adverse
shocks receive indemnities that improve their well-being. With proper provisioning and accounts, that welfare gain could be weighed against premia or government subsidies.


This book provides an in-depth evaluation of the financial system of Thailand. Using a wealth of primary source qualitative and quantitative data, including survey data collected by the author, it evaluates the impact of specific financial institutions, markets for credit and insurance, and government policies on growth, inequality, and poverty at the macro, regional, and village level in Thailand. The primary focus of this book is to measure and study the impact that financial institutions and policy variation can have at the macro- and micro-level, including the distribution of gains and losses in this economy.


The purpose of this paper is to study the manufacturing industry in several developing countries. The author finds that the manufacturing sectors of developing countries have traditionally been relatively protected. In their majority, these have also been subject to heavy regulation, much of which has favored large firms. In particular, the author studies three common claims made for other authors. First, markets tolerate inefficient firms, so cross-firm productivity dispersion is high; second, small groups of entrenched oligopolists exploit monopoly power in product markets; and third, many small firms are unable or unwilling to grow, so important scale economies go unexploited. Based on several plant and firm level studies, the author surprisingly finds that none of these assertions can be systematically supported.


In this paper, the authors measure the income shares of capital and labor at the sectoral level for the U.S. economy. In addition, they also decompose the capital shares into the income shares of land, structures, and equipment. Findings suggest that the capital shares differ across sectors. For example, the capital share of agriculture is more than two times that of construction and more than 50 percent larger than that of the aggregate economy. The authors also find that agriculture has by far the largest land share, which mostly explains why it has the largest capital share. Their numbers are used to calibrate standard multi-sector models. Alternatively, they claim that if one wants to abstract from differences in sector capital shares, their numbers can be used to establish that this is not crucial for the results.


This paper evaluates the importance of microeconomic irreversibilities for aggregate dynamics using a real-business-cycle (RBC) model characterized by investment irreversibilities at the establishment level. The main finding is that investment irreversibilities do not play a significant role in an otherwise standard real-business-cycle model: Even though investment irreversibilities are crucial for establishment-level dynamics, aggregate fluctuations are basically the same under fully flexible or completely irreversible investment.