



NETWERK ALGEMENE EN KWANTITATIEVE ECONOMIE

NETHERLANDS NETWORK OF ECONOMICS

**NAKE DAY 2004**

**Book of Abstracts**

October 22, 2004

Dutch Central Bank, Amsterdam



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Dutch Central Bank

Amsterdam, October 22, 2004

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**Jaap Abbring**

“Social Experiments and Instrumental Variables with Duration Outcomes”

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The paper examines the empirical analysis of treatment effects on duration outcomes from data that contain instrumental variation. We focus on social experiments in which an intention to treat is randomized and compliance may be imperfect. We distinguish between cases where the treatment starts at the moment of randomization and cases where it starts at a later point in time. We derive exclusion restrictions under various informational and behavioral assumptions and we analyze identifiability under these restrictions. It turns out that randomization (and by implication, instrumental variation) by itself is often insufficient for inference on interesting effects, and needs to be augmented by a semiparametric structure. We develop corresponding non- or semiparametric tests and estimation methods.

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**Szvetlana Acs**

“Bio-economic Modeling of Arable Farming System, Comparison of Conventional and Organic Farming Systems in the Netherlands”

Business Economics Group

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*Abstract:*

Growing environmental concern in society combined with policy stimuli has encouraged farmers to switch from conventional to organic production

technologies. However, farmers' decisions on whether or not to make this switch have not been studied thoroughly thus far. A first step in this decision is to determine farm results under an organic scenario if the farmer would convert and to compare these results with his traditional farm results. In this paper a linear programming model of a conventional arable farm and an organic arable farm are presented. The models include environmental externalities, such as losses of nutrients and pesticide use, the levels of which can be influenced by using different production structures (or cropping plans). With the conventional model two different crop rotations (1:3 and 1:4), and with the organic model one 1:6 crop rotation are analyzed and the results of these three situations are compared. The example farm that is modeled is typical for the Central clay area of North East Polder in the Netherlands. The results show that organic farming leads to less intensive land use with slightly better environmental results. Economic results of organic farming depend strongly on the crop prices, and the amount of labor used. Expenditure on hired labor is much higher in organic farming but total costs are lower. This is mainly due to the less intensive cropping plan. Prices for organic products are higher than for similar conventional products, but lower yields and the less intensive cropping plan mitigates the effects on total revenue.

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**Juan-Carlos Altamirano-Cabrera**

“Permit Trading and Stability of International Climate Agreements”

Environmental Economics and Natural Resources

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*Abstract:*

We analyze the implication of different allocation schemes of CO<sub>2</sub>-emission permits for stability and the success of international climate agreements. Our model combines a game-theoretical module with an empirical module that

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comprises 12 world regions and captures important dynamic aspects of the climate change problem. We consider eight different permit allocation schemes. Two “pragmatic schemes” allocate permits according to a uniform emission reduction target, whereas six “equitable schemes” allocate permits based on some normative criteria frequently discussed in the literature. It turns out that permit trading can raise participation and the success of climate agreements but pragmatic schemes are superior to equitable schemes.

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**Ivo Arnold**

“Optimal Regional Biases in ECB Interest Rate Setting”

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*Abstract:*

This paper investigates whether the influence of national output and inflation on European Central Bank (ECB) interest rate setting should differ from a country’s weight in the euro zone economy, using a simple model for optimal monetary policy. The findings depend on assumptions regarding interest elasticities, exchange rate elasticities and openness vis-à-vis non-euro zone countries. One finding is that the ECB should respond less to inflation shocks in Economic and Monetary Union (EMU) countries, which have strong trading ties with non-euro zone countries. Intuitively, these countries can take care of some of the monetary tightening themselves through a real appreciation of the currency vis-à-vis their non-euro zone trading partners.

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**Alexandra Ayala**

“Opening Up the Spanish Banking Market: How Does Efficiency Change?”

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*Abstract:*

The object of this paper is to analyze the profit and cost efficiency of Spanish banks. Comparisons are made across bank size and bank specialization for the period 1995-1999. The timeframe is selected since upon entrance to the European Community in 1986, Spanish banking policy was marked by deregulation and liberalization. Furthermore, the year 1999 is characterized by the challenges that arose from having a single monetary policy and a common currency in the European Union. This timing presents an opportunity to investigate the changes experienced by the banking system. It is theorized that Spanish banks had to increase their efficiency if they wanted to survive in a highly consolidating national banking market. Furthermore, efficiency enhancement can be viewed as a response to the threat of entry of foreign banks in what was once a highly protected industry. Results show an average increase in profit efficiency scores of 20 percent while cost efficiency scores remain stable. Bank size and specialization are both determinants of efficiency. Medium banks are more efficient than small-sized banks while large banks are the most efficient ones. Savings banks present higher efficiency scores than commercial banks.

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**Leon Bettendorf** and Ben Heijdra

“Population Ageing and Pension Reform in a Small Open Economy with Non-Traded Goods”

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*Abstract:*

In this paper we study the implications of population ageing in an economy with a sizeable non-traded goods sector. To this effect a highly stylized micro-founded macro model is constructed in which the age structure of the population plays a non-trivial role. The model distinguishes separate birth and death probabilities (thus allowing for net population change), allows for age-dependent labor productivity (thus mimicing life-cycle saving), and includes a rudimentary pension system (thus allowing for intergenerational redistribution). The model is used to analytically study demographic and pension shocks.

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**Govert Bijwaard**, Philip Hans Franses and Richard Paap

“Modelling Purchases as Repeated Events”

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*Abstract:*

We put forward a statistical model for interpurchase times that takes into account all the current and past information available for all purchases as time continues to run along the calendar timescale. It delivers forecasts for the

number of purchases in the next period and for the timing of the first and consecutive purchases. Purchase occasions are modeled in terms of a counting process, which counts the recurrent purchases for each household as they evolve over time. We show that formulating the problem as a counting process has many advantages, both theoretically and empirically. We illustrate our model for yogurt purchases and we highlight its useful managerial implications.

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**Peter Broer**

“The Elasticities of Complementarity and Substitution”

Sector Growth, Structure and Knowledge Economics

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*Abstract:*

This paper argues that the conventional definition of the elasticity of complementarity is not suited to deal with the case of increasing returns. It proposes a slightly different formula, which uses a distance function formulation instead of a production function. The proposed definition coincides with the Hicksian measure in case the production function displays constant returns. It is more informative in case returns to scale are not constant, as it disentangles entry effects and substitution effects of factor supplies. The new definition is also preferable in that it is fully symmetric with the definition of the elasticity of substitution.

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**Sebastian Buhai** and Marco van der Leij

“Occupational Segregation in the Labor Market: A Dynamic Network Analysis”

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*Abstract:*

This paper proposes a simple model of labor market segregation generated by the existence of inbreeding bias in social networks among individuals of the same social group. We analyze a network model inspired by Montgomery (1991) and Calvo-Armengol and Jackson (2004), in which we show that if network referrals are important in getting a job, then inbreeding bias in the social structure results in inbreeding bias in the choice of education. This further translates into occupational segregation within the labor market. This analysis can be regarded as a possible alternative explanation for the well-known historic evidence on labor market discrimination such as gender or racial discrimination. Discrimination mainly takes the factual form of limiting the range of jobs in which the disadvantaged categories were hired at all, rather than always materializing in different wages between categories for the same types of jobs.

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**Koen Caminada** and Kees Goudswaard

“The Fiscal Subsidy on Pension Savings in the Netherlands”

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*Abstract:*

The purpose of this paper is to provide an indication of the (budgetary) cost of different pension tax treatments in the Netherlands by using full present-value calculations. The fiscal subsidy on pension savings in the Netherlands (as well as in several other countries) is associated with the application of the cash-flow treatment of pensions under the personal income (EET). Indeed, tax treatment of pension saving can have other forms as well. We consider a specified form of a comprehensive income tax system as an appropriate benchmark (TTE). Our calculations, using Income Panel Data (Statistics Netherlands) for the year 2000, show that current taxation on a cash-flow basis means on balance a major loss to the Treasury (compared to the benchmark). At a relatively low real return on the pension capital of 3 percent and a build up period of 22½ years, the fiscal subsidy in terms of net present value is euro 7.7 billion (1.9 percent of the GDP). At an interest return of 5 percent, the fiscal subsidy on pension saving rises to 2.7 percent of GDP. For the year 2003, we estimate an even higher amount.

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**Erik Canton**

“Science-to-Industry Knowledge Spillovers”

Growth, Knowledge and Structure

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*Abstract:*

A widely voiced concern is that while Dutch universities are productive in terms of publications, firms make too little use of the newly created scientific knowledge. Actually, also other European countries face this problem, and it is often referred to as the European paradox. This European paradox is of great concern to policymakers, as limited knowledge spillovers between science and industry lower the potential for innovation and economic growth. In this study

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we explore the factors behind university-to-industry knowledge spillovers. To that end, we analyze characteristics of the university, of the firm, and of the knowledge spillover process. An important issue in this context is the incentive structure. Are scientists rewarded for commercialization of their ideas? And what is the price of intensified relationships with industry in terms of the disclosure of research findings, or a change in the nature of research? We also explore international good practices on the promotion of university-to-industry knowledge spillovers, and discuss the Dutch policy interventions to foster the connection between science and industry. Finally, we sketch policy options.

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**Yiu Chung Cheung**

“Explaining Yield Differentials: A Hedging Perspective”

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*Abstract:*

Hedging and speculative motives of market makers often requires strategies involving positions in both the futures and spot market. The risk involved in the payoff of these strategies depends on the basis risk and cannot be diversified away. Using simulations based on a model with risk aversion, we find that a market maker increases his quoted spread when the basis risk increases modestly. However, if the basis risk becomes very large, the increase in quoted spread becomes larger. This non-linearity in spreads suggests that the first market maker increases his spread as a compensation for the increased hedge difficulty. When the basis volatility becomes very large, however, the quoted spread becomes even larger, indicating his unwillingness to trade. Based on these findings, we study the basis risk for four fixed income securities in Europe. Using a state-space approach applied to trading data, we

estimate the basis risk volatility and find that bonds that are traded at a premium, like in Germany and France, have lower basis volatility. This gives an alternative explanation why some European bonds are traded at a significant premium even when we take differences in liquidity or credit risk into account.

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**Jiajia Cui**, Frank de Jong and Eduard Ponds

“Intergenerational Transfers Within Funded Pension Schemes”

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*Abstract:*

In this paper we model the transfers of value between the various generations in a funded pension scheme. Value calculation is based on contingent claims valuation (dilator method). We define a setting like in the Netherlands, where pension benefit and contributions may depend on the funding ratio (the ratio of assets to liabilities of the fund). Furthermore, we define explicit risk allocation rules, specifying whom of the stakeholders, when, and to what extent is taking part in risk bearing. Such a pension deal may lead to substantial transfers of wealth between young and old generations, depending on the asset returns and the exact risk allocation scheme. Using the contingent claims valuation method, we calculate these transfers and the distribution of value across generations. The pension schemes that provide safer and smoother consumption streams are ranked higher in utility terms. The smoother consumption stream can be achieved by allowing risk shifting over time, using mainly indexation instruments instead of contribution instruments.

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**Eric van Damme**

“Abuse of a Dominant Position: Four Cases”

CentER

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*Abstract:*

I will discuss the economics of four abuse cases; two at the European Union (EU) level (IMS Health and Michelin) and two at the level of the Netherlands (NOS/Telegraaf and CR Delta). The case of IMS Health and NOS/Telegraaf deals with the conflict between protection of Intellectual Property Rights and competition law: under what circumstances does refusal to grant a license constitute an abuse of a dominant position. According to the EU Court of Justice, and the Dutch Central Planning Bureau (CPB) there is an abuse only if not granting a license prevents a “new product” from coming on the market, which raises obvious questions about how the court will decide whether something is new. In Michelin II and CR Delta, the question is under which circumstances non-linear pricing, specifically quantity discounts, constitute an abuse. I will point out the similarities between the EU and the Dutch cases and raise some issues for further research.

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**Josse Delfgaauw**

“Incentives and Workers’ Motivation in the Public Sector”

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*Abstract:*

Civil servants have a bad reputation of being lazy. However, citizens' personal experiences with civil servants appear to be significantly better. We develop a model of an economy in which workers differ in laziness and in public service motivation, and characterize optimal incentive contracts for public sector workers under different informational assumptions. When civil servants' effort is unverifiable, lazy workers find working in the public sector highly attractive and may crowd out workers with a public service motivation. When effort is verifiable, the government optimally attracts motivated workers as well as the economy's laziest workers by offering separating contracts, which are both distorted. Even though contract distortions reduce aggregate welfare, a majority of society may be better off as public goods come at a lower cost.

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**Bram van Dijk**

“Treatment Effect of Job Training Programs on Unemployment Duration”

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*Abstract:*

In this paper we determine the treatment effect of three job training programs on the unemployment duration in Slovakia. To handle the selection effect, the selection into the programs is described explicitly by observed covariates and unobserved heterogeneity. A multivariate mixed proportional hazard (MMPH) type model is used to describe the hazard of getting a job simultaneously with the hazards of entering one of the three programs. Estimation results show that two of the programs shorten the unemployment duration quite substantially.

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**Robert Dur**

“Optimal Incentive Contracts When Workers Envy Their Boss”

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*Abstract:*

A worker's utility may increase in his own income, but envy can make his utility decline with his employer's income. Such behavior may call for high-powered incentives, so that increased effort by the worker little increases the income of his employer. This paper employs a principal-agent model to study optimal incentive contracts for envious workers under various assumptions about the object and generality of envy. Envy amplifies the effect of incentives on effort and, therefore, increases optimal incentive pay. Moreover, envy can make profit sharing optimal, even when the worker's effort is fully contractible. We discuss several applications of our theoretical work. For example, envy can explain why lower-level workers are awarded stock options, why incentive pay is usually lower in non-profit organizations, and higher in larger firms. Envy may also make governmental production of a good more efficient than private production.

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**Sabine Fuss**

“Investing in Energy Conversion Technologies: An Optimum Portfolio Selection Approach”

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*Abstract:*

The methods by which fuels can be converted into electricity all belong to different “technology families:” the gas-fired-turbine-family, the coal-fired-turbine-family, etcetera. Each family consists of different generations of similar technologies, as in a vintage model. Within a family, the latest generation embodies the most recent level and type of knowledge, becoming outdated as new generations arrive. Producers face the problem of how to compose their portfolio of families to maximize risk-adjusted returns to investment. Risk emanates from a number of uncertainties, such as volatile electricity and fuel prices and technological uncertainty. The paper presents a model capturing these features by combining the Bischoff (1971) approach with optimum portfolio theory.

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**Pieter Gautier**

“Marriage and the City”

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*Abstract:*

This paper tests whether cities can be viewed as marriage markets. The idea is simple. Cities are dense areas where singles can meet more potential partners than in rural areas. To enjoy those benefits, they are willing to pay a premium in terms of higher housing prices. Once married, the benefits from meeting more potential partners vanish and consequently for couples, the countryside becomes more attractive. We extend the model of Burdett and Coles (1997) with a distinction between efficient (cities) and less efficient (non-cities) search markets. One obvious implications of the model is that singles are more likely to move from rural areas to cities while married couples are more likely to make the reverse movement. Another prediction of the model is that

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attractive singles benefit most from a dense market (i.e. from being choosy). Those predictions are tested with a unique Danish dataset.

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**Benedikt Goderis**

“The Effectiveness of Monetary Policy in Defending a Fixed Exchange Rate During Speculative Attacks: New Evidence”

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*Abstract:*

The appropriate monetary policy stance during speculative attacks has been the source of much controversy. According to the so-called 'traditional view', tighter monetary policy is necessary to discourage the outflow of capital and, ceteris paribus, appreciate the exchange rate. The 'revisionist view', however, argues that when speculative attacks are accompanied by substantial balance-sheet problems in the financial and corporate sectors, a tightening of monetary policy may actually have a reverse effect on the exchange rate. In this paper, we construct a dataset that includes data on corporate short-term debt levels and country-specific monetary policy interest rates for countries with fixed exchange rates that are facing severe speculation against the currency. The data allow us to empirically test for the traditional and revisionist effects. The results show that for levels of short-term debt that are not too high, higher interest rates decrease the probability of a currency crisis, supportive of the traditional view. This effect decreases (and eventually changes sign) for higher debt levels, supportive of the revisionist view.

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**Henri de Groot**

“Cultural and Institutional Determinants of Patterns of Bilateral Trade and FDI”

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*Abstract:*

There is large variation in trade patterns across the world. Despite the popular discussion on the ‘death of distance,’ distance is still the primary candidate for explaining this variation. In the paper, we empirically investigate the importance of distance, acknowledging its multiple dimensions. This is done within the context of an otherwise standard gravity model. Apart from physical distance, we also consider the effects of cultural distance and institutional distance using a sample of 102 countries. Our results reveal the importance of all three dimensions of distance. Physical distance has a negative effect on trade. Also institutional distance is negatively associated with the intensity of international trade, which is likely to be due to increased transaction costs caused by widely differing institutional settings. In contrast, cultural distance is positively associated with bilateral trade. A potential explanation for this result is that when cultural distance increases countries increasingly rely on exports as opposed to foreign direct investment (FDI) as a means of serving foreign markets.

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**Nigist Haile**

“Decision-Making Under Risk: Evidence From Northern Ethiopia\*”

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*Abstract:*

There is a long standing discussion in the literature, whether expected utility theory (EU) or prospect theory (PT) explains best the behavior with respect to risky choices. Often these two approaches are compared in laboratory situations. Here we try to investigate stated preferences of farmers, which are functioning under high levels of risk in real life. As part of a larger survey, four binary choices were offered during two successive years. The experimental test was done for 200 farmers in two different districts in Tigray, Northern Ethiopia. Three items were central in comparing the risk attitude according to EU and PT: the asymmetry of risk perceptions, the independence axiom and the differences for 'small' and 'large' risks. The farmers in the two different districts (Enderta and Adigudom) differed significantly in their risk attitude. Enderta farmers were significantly risk-averse for gains and risk seeking for losses, and their preferences conformed to the hypothesis of prospect theory. Adigudom farmers, however, could be described as expected utility maximizers. To get more insight in factors explaining the risk attitude a logit model has been used for all farmers and all questions. Off-farm income was found to be positive and significant, while value of oxen and total cultivated land had the expected negative sign and directly related to decreased risk aversion.

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**Pim Heijnen**

“Environmental Groups in Monopolistic Markets”

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*Abstract:*

We examine a market in which a monopolistic firm supplies a good. The production of the good causes damage to the environment. Consumers are heterogeneous with respect to their disutility of the environmental damage.

An environmental group (EG) can enter the market and set up a campaign in order to influence consumers' preferences. We characterize the equilibrium of the resulting entry-deterrence game and investigate its social welfare properties. In equilibrium social welfare is largest if the monopolist deters entry of the EG by selecting a clean-enough production technique.

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**Yamei Hu**

“Competing Screening Rules”

Management School

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*Abstract:*

A model is developed to explore how competing screening rules affect efficient organizational choices and industrial structures. Conditions are derived under which co-operatives become efficient organizational forms. It is also shown that circumstances exist in which cooperatives and investor-owned firms can coexist in equilibrium. Under competing screening rules, screening level choice may outweigh architecture choice, and competition may increase the attractiveness of investor-owned firms.

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**Joop Huij**

“Cross-Sectional Learning and Short-Run Persistence in Mutual Fund Performance”

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*Abstract:*

We investigate short-run performance persistence of US equity funds in the CRSP Mutual Funds Database over the period 1985–2003. Because returns are only available on monthly frequencies and standard ordinary least squares (OLS) alphas are typically not very accurate based on short measurement horizons, we employ Bayesian alphas to measure managerial skill more efficiently. By allowing the prior to incorporate the large cross-section of mutual funds, subjective beliefs about managerial skill are irrelevant and Bayesian alphas are determined on the basis of monthly returns only. Using a measurement horizon of one year, the empirical results indicate that when funds are ranked on Bayesian alphas, highest ranked funds have Sharpe ratios significantly higher than the median over the next 12 to 21 months. Using longer measurement horizons, we do not find evidence of persistence.

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**Robert Inklaar** and Marcel Timmer

“Productivity Growth in US Trade Industries: Myth or Reality?”

International Economics and Business

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*Abstract:*

Growth in the trade sector has been one of the main drivers of the US productivity boom since the mid 1990s and more intensive ICT use has been suggested as one of the causes. In comparison, European performance has been lagging. The paper provides a critical evaluation of the statistical evidence of the US-EU growth gap in wholesale and retail trade industries. First, we look at the impact of the much more extensive use of hedonic deflators in the US compared to Europe, a problem similar to comparing deflators of ICT investment goods across countries (Wyckoff, 1995). Second, we distinguish the productivity of the trade sector separately from the

productivity of goods production by providing double-deflated measures of output (cf. Triplett, 1996). Third, we study the sources of value added growth by focusing on the role of intermediate inputs. Our main conclusion is that US productivity growth in mainly wholesaling is overstated, but not by enough to close the growth gap with European countries. This is in line with other evidence indicating fundamental changes in the organization of the US trade sector in the 1990s.

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**Jan Jacobs**, Jan Bonenkamp and Jan-Pieter Smits

“Determinants of Consumption in the Netherlands”

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*Abstract:*

We investigate consumption demand in the Netherlands in the nineteenth century. First we formally establish whether sub-periods can be distinguished in the development of consumption. Then, we estimate dynamic consumption models that distinguish both long-term and short-run behavior. We find that the relation between consumption and its determinants, real wage, excise taxes, unemployment and the real interest rate, changes over the sample. Real wages and excises play a role throughout the sample, whereas the impact of the real interest rate and unemployment is confined to the beginning of the period of modern economic growth. This paper also sheds light on the debate whether demand factors may have been decisive in enhancing industrial growth.

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**Ron Jongen**

“On the Rationality of Interest Rate Expectations”

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*Abstract:*

This paper examines the rationality of interest rate expectations by means of a previously unexploited data set that covers a broad range of European Monetary System (EMS) versus non-EMS foreign currency deposits. We find that economic agents over-estimate the true level of future interest rates, and that this overestimation increases with the forecast horizon, which could be a manifestation of a peso problem. We find some evidence that the effect of the EMS action of reducing the volatility of inflation has exerted a stabilizing role on EMS interest rate expectations. Furthermore, interest rate forecasts are not rational in that expectations are biased and that economic agents do not use all available information in an efficient manner; a finding which magnifies as the forecast horizon lengthens. This finding applies to the post-1990 period, thus questioning the assertion of Frankel and Froot (1987) that “the nature of the rejection of rational expectations strongly depends on the sample period.” Extrapolative and adaptive expectations formation mechanisms describe interest rate expectations to a certain extent. The evidence indicates that (long-term) expected interest rates show signs of mean reversion as implied by stabilizing expectations models, which would imply that expectations do not appear to overreact systematically to changes in the general level of interest rates.

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**Martin Kahanec**

“Social Interaction and the Minority-Majority Earnings Inequality: Why being a Minority Hurts But Being a Big Minority Hurts More”

Economics

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*Abstract:*

Empirical findings that minorities typically attain lower economic status than majorities and that relatively larger minorities perform worse than smaller ones pose a challenge to economics. To explain this scale puzzle, I model an economy where the society is bifurcated into two social groups that differ in their size and sociocultural characteristics –the minority and the majority– and individuals form their human capital through social interaction in social networks. I establish that the different social group sizes and the sociocultural differences suffice to generate earnings inequality between the two social groups whenever sociocultural differences hinder social interaction between majority and minority individuals and there are networks effects in human capital acquisition. If there is, in addition, asymmetric information in the labor market and a choice of heterogeneous skills in the economy, minority and majority individuals tend to acquire different (combinations of) skills and the predicted patterns of income inequality comply with the scale puzzle under fairly general conditions. Moreover, in the paper I offer an answer why some minorities do better than majorities, why minority individuals tend to spend more time socializing in families than in schools, and why integration may harm minorities.

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**Michael Koetter**

“Successful Bank Mergers and Technological Change”

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*Abstract:*

Berger and Humphrey (1997) state that the financial services industry experienced fundamental changes during the last decade. Among the most prominent drivers of change is according to Goddard et al. (2001) technological change. A major consequence of technological change is according to Amel et al. (2002) the ignition of merger waves. Consolidation aims to improve productive efficiency in order to face increased competition. The dynamics of the German banking landscape confirms this consolidation trend. The number of cooperative and saving banks declined from 3,478 to 1,877 between 1993 and 2003. This observation naturally raises two questions. First, if this merger wave was successful to enhance the transformation of inputs into outputs? And second, whether bank mergers are indeed accompanied by technological change? In this paper we evaluate the success of mergers by comparing pre-merger efficiency differentials with post-merger efficiency growth. We utilise stochastic frontier analysis to derive firm-specific cost efficiency estimates. We estimate technological change and decompose the latter according to three alternative sources. We relate each of these to different groups of banks to investigate if technological change differed between non-merging and (un-)successfully merging banks.

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**Erik Kole**

“Portfolio Implications of Systematic Crises”

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*Abstract:*

Systemic crises, interpreted as global simultaneous shocks to financial markets, can have severe implications for asset portfolio because of the dramatic deterioration of the risk-return trade-off. We propose to investigate these implications in a simple and flexible framework that combines regime switching with Merton (1969)-style portfolio construction. We analyze the allocations of a utility maximizing investor who can adopt either a crisis conscious or a crisis ignorant strategy to construct optimal portfolios based on an investment set consisting of the United States, Japan, Hong-Kong, Korea and Thailand. We show that the possibility of a crisis leads to falling investments in risky assets and a shift to countries less prone to a crisis. These portfolio changes can be partially interpreted as hedging demands for a crisis. We find that the costs of ignoring a systemic crisis are substantial, ranging from 0.65 percent per year if no information about the actual regimes is known, to over 5 percent per month if a crisis is known to hit with almost certainty.

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**Ruud Koning**

“Rating Models in Soccer”

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*Abstract:*

An important aspect in the analysis of soccer results is the separation of observed outcomes in randomness and quality variation. Different models have been proposed to make this distinction. In this talk, I will discuss two such models and show how the estimated parameters of these models can be used to analyze development of competitive balance over time, and estimate the effect of interventions.

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**Tobias Kronenberg**

“A Double Dividend in a Small Open Economy”

MERIT

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*Abstract:*

The double dividend hypothesis, in its strong form, states that stricter environmental policy may yield welfare gains even if the environmental effects are not taken into account. A more specific version of the hypothesis says that environmental policy may boost employment. The theoretical literature suggests that this may indeed be the case, but only in situations with large initial market distortions. This paper argues that in a small open economy with no market imperfections it is also possible to raise output and employment by means of environmental policy. If labor supply is elastic, a new tax on energy that is being recycled as a subsidy on wages can affect energy use, consumption, and employment. The qualitative effects of the policy on the latter two variables depend on the tax rate, and within a certain range a double dividend can be achieved.

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**Lestano**

“Synchronization of Financial Crises: Six Asian Countries, 1970-2002”

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*Abstract:*

This paper develops concordance indices for studying the simultaneous occurrence of financial crises across markets or countries or both. The typically low incidence of financial crises necessitates a change in the definition of concordance from those recently developed for the business cycle literature (Harding and Pagan, 2002, 2003). We propose to confine attention to non-tranquil periods to develop a revised bivariate index, and its multivariate analog, and study their properties, including tests of independence between the component series. An application to East Asian countries reveals the extent of concordance in crises by both asset market and country.

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**Marco van der Leij** and Sanjeev Goyal

“Strong Ties in a Small World”

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*Abstract:*

This paper examines the 'strength of weak ties' theory by Granovetter (1973) using data on co-author network relations of economists. This theory hypothesizes that: (i) triads with strong links are more transitive; and (ii)

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weak links are more critical for network integration. We find support for the first hypothesis, but we surprisingly reject the second hypothesis. We suggest that the key to understand these findings are the fact that ties between actors with many ties are relatively stronger. We believe that these findings support an alternative view of the structure of the social world: the network of economists seems to consist of a core of highly influential people with many and strong ties.

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**Michiel van Leuvensteijn** and Wolter Hassink

“On Anomalous Prices in the Dutch Mortgage Market”

Sector Competition and Regulation

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*Abstract:*

A well-known result from the economic literature is that borrowers with higher collateral have lower risk of default. For that reason, mortgagors tend to reduce the interest rate on mortgages that are backed by higher collateral (relative to the size of the loan). In addition, collateral of homes with a better quality (such as new homes) are more likely to have relative higher nominal price increases in the future, so that for specific types of property mortgagors may have additional discounts on the mortgage rate. We acquired information on interest rates of mortgages that are insured by the Dutch National Mortgage Guarantee (NMG), which eliminates default risk for mortgagors. We test the null-hypothesis that the type of collateral influences the mortgage's interest rate. For this purpose, we use information on interest rates and other characteristics of mortgages from individual borrowers over the period January 1995 – September 2001. We find that new homes and apartments have respectively lower and higher interest rates after correcting for value of the collateral (and other observed characteristics, such as age and income).

The results do not change when the mortgage rate equation is estimated for each lender separately. However, as there is no risk of default to the lender, one would expect there is no impact of the type of property on the mortgage rate. This result points at an anomaly in the Dutch mortgage market.

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**Gert-Jan Linders**

“Institutional Determinants of Bilateral Trade: An Analysis According to Product Type”

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*Abstract:*

Formal trade barriers and transport costs explain only part of the resistance to international trade. Search costs in the international marketplace and insecurity of property rights and contract enforcement have recently been emphasized as important intangible barriers to trade. This paper proposes that the impact of institutional quality on bilateral trade depends on the type of product that is being traded. Distinguishing between homogeneous and differentiated product groups, we estimate gravity equations to investigate how trade patterns are affected by variation in the quality of institutions across countries. The results show that institutions matter most for trade in differentiated goods. This underlines the relevance of search costs and other transaction-specific investments in, for example, property rights protection and contract enforceability for understanding variation in bilateral trade patterns.

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**Gijsbert van Lomwel**

“On the Timing of Marriage, Cattle and Weather Shock”

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*Abstract:*

In this paper we focus on the timing of marriages of women, whose marriages are associated with bride wealth payments, which are transfers from (the family of) the groom to the bride's family. Unmarried daughters could therefore be considered assets, which at times of need, can be cashed in. We investigate both theoretically and empirically to what extent the timing of a marriage of a daughter is affected by the economic conditions of the household from which she originates. We distinguish household specific wealth levels and two types of shocks: correlated (weather) shocks and idiosyncratic (wealth) shocks. We estimate a duration model using a unique panel survey of Zimbabwean smallholder farmers. The estimation results support the hypothesis that the timing of marriage is affected by household characteristics; girls from households that experienced a negative idiosyncratic (wealth) shock are more likely to marry.

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**André Lucas**

“Discrete Versus Continuous State Switching Models for Portfolio Credit Risk”

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*Abstract:*

Dynamic models for credit rating transitions are important ingredients for dynamic credit risk analyses. We compare the properties of two such models that have recently been put forward. The models mainly differ in their treatment of systematic risk, which can be modeled either using discrete states (for example, expansion versus recession) or continuous states. It turns out that the implied asset correlations and default rate volatilities for discrete state switching models are implausibly low compared to empirical estimates from the literature. We conclude that care has to be taken when discrete state regime switching models are employed for dynamic credit risk management. As a side result of our analysis, we obtain indirect evidence that asset correlations may change over the business cycle.

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**Antonio Marasco**

“Testing Schumpeterian Growth Theory: The Role of Income Inequality”

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*Abstract:*

This paper tests a strand of Schumpeterian growth theory that predicts a role for income inequality as a determinant of technology-enhancing activities, in the shape of innovation in the North and of technology transfers in the South. The analysis is conducted at three different levels: by world region, by industrial sector and by country. While the analysis by world region does not produce any clear cut evidence, the analysis by sector yields some evidence that income inequality in the South may have a positive effect on research and development (R&D) expenditures in some industrial sectors located in the North, such as non electricals and pharmaceuticals. Income inequality in both world regions seems also to play a role on the amount of technology that is transferred to the developing world. The sign of the effect might be positive

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for some sectors and negative for others, but the overall impact is probably negative in the case of Northern income inequality and positive with respect to Southern income inequality. However, the strongest evidence comes from the cross-country analysis. We find that for each of the 15 OECD countries, foreign income inequality in the countries that trade the most with them has a positive effect on the R&D expenditure carried out in those 15 countries. Such evidence appears robust to whether we introduce control variables or not, and to several ways of measuring the dependent variable and the independent variables concerned. The cross-country analysis also yields some evidence of a positive effect of both domestic and foreign (mainly developed world) income inequality on the level of technology transfers to developing countries.

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**Rute Mendes**

“An Empirical Assessment of Assortative Matching in the Labor Market”

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*Abstract:*

In labor markets with two-sided productivity heterogeneity, matching between firms and workers may be assortative. In this paper, we investigate this hypothesis based on a unique matched employer-employee dataset. Using fixed effects method, we estimate production functions which include firm-specific productivity and various qualities of labor inputs. Having quantified the firm-specific productivities, we assess assortative matching, qualitatively and quantitatively. We find strong evidence for positive assortative matching (PAM) in the Portuguese labor market. Furthermore, a sensitivity analysis based on different panels suggests that PAM is found stronger when measured among long-lived firms. We also examine whether PAM is caused by two-sided sorting or by search friction heterogeneity across labor skills.

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**Gerard Moerman**

“European Equity Market Integration: The Case of the Banking Sector”

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*Abstract:*

European banking regulation has been harmonized to a high degree over the last few decades. Nevertheless, the European banking industry remains fragmented as shown by the relatively high market shares of banks in their home countries. In this paper we focus on the integration process of European bank share prices. Although the real activities of banks may be primarily domestically oriented, their share prices may indicate that investors perceive the sector to become more integrated. We develop a bivariate regime switch model that is able to detect different integration (correlation) regimes. The model is applied to a set of 41 European banks that have a continuous share price listing over the period January 1990-March 2003. Our main finding is that the correlation between larger banks in Europe has increased over this period, whereas the correlation between smaller banks has become lower. A reason for this result could be that, irrespective of the reported real segmentation, investors perceive that the activities of bigger banks will get more integrated. Another reason may be that as a result of institutional and other larger investors turning their investment strategies towards a sector-based approach, investors are tracking indices of the European banking sector. These indices are typically constructed from the stock price information of the European banks, which have the largest market capitalization.

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**Jos van Ommeren** and Joyce Dargay

“The Optimal Choice of Commuting Speed: Consequences for Commuting Time, Distance and Costs”

Regional Economics

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*Abstract:*

In this paper, we derive a structural model of commuting speed. We presume that the commuting speed is chosen to minimize the commuting costs, which encompass monetary and time costs. At faster speed levels, the monetary costs increase, but the time costs fall. Using data from Great Britain, we demonstrate that the income elasticity of commuting speed is 0.126. The ratio of variable monetary costs to time travel costs is 0.14.

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**Sander Onderstal**

“Bidding for the Unemployed: An Application of Mechanism Design to Welfare-to-Work Programs”

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*Abstract:*

This paper applies the theory of mechanism design to welfare-to-work programs. When procuring welfare-to-work projects to employment service providers, governments face the problems of adverse selection (the winning provider is not the most efficient one) and moral hazard (the winning provider shirks in its effort to reintegrate unemployed people). We compare three

auctions with the socially optimal mechanism and show that two of these auctions approximate the optimal mechanism if the number of providers is large. Moreover, both auctions are preferable to the optimal mechanism when the government is able to attract only one additional bidder.

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**Hessel Oosterbeek**, Edwin Leuven and Bas van der Klaauw

“The Effect of Financial Rewards on Students' Achievement: Evidence From a Randomized Experiment”

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*Abstract:*

This paper reports about a randomized field experiment in which first-year economics and business students at the University of Amsterdam could earn financial rewards for passing all first-year requirements before the start of their second academic year. Participants were assigned to a high reward group, a low reward group or a no reward (control) group. Overall the passing rate and the numbers of collected credit points are not significantly different across the three groups. The same is true for the reported amount of study time. We find, however, some evidence of heterogeneous treatment effects. In particular, students with high math skills and students with higher educated fathers have higher passing rates and collect more credit points when assigned to (higher) reward groups. While reported study time for these groups is not affected by treatment status, the students claim that they have studied harder as a consequence of the rewards.

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**Arie Oskam**

“How Useful is the PSE in Determining Agricultural Support?”

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*Abstract:*

The support of the agricultural sector in developed countries plays a major role in the international policy agenda. The Producer Support Estimate (PSE) is one of the best-known measures, which has been developed by the OECD and is used all over the globe. In the PSE all types of support are aggregated and one of the main components (70 percent at OECD level) is the Market Price Support (MPS). Here we show by means of characteristic examples that the MPS has no clear relation to basic economic measures determining support for producers as a consequence of policy intervention. The MPS overestimates the consequences of tariffs and export subsidies and underestimates the consequences of quota systems in determining producer support. Misperception of the size and directions of support may affect policy decision-making wrongly. The paper indicates that weighted average producer prices, corrected for quantity restrictions, may be more useful than the reference prices and quantities used by the OECD.

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**France Portrait**

“Effect of Conjugal Bereavement on Health Status and Mortality at Older Ages”

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*Abstract:*

The study assesses the effects of spousal bereavement on health and mortality risks at advanced ages. For that purpose, we specify a bivariate survival model for husband and wife and a dynamic model for health and estimate it on a rich longitudinal survey that is linked to administrative data on the vital status of the main respondent and his/her partner. Due to this, we are able to add some interesting elements to our model. The mortality hazard of the main respondent allows for a direct effect of the death of the partner and of a range of health indicators. The health indicators give an accurate description of all dimensions of individual health and are derived from a broader set of health indicators using the flexible, non-parametric Grade of Membership data reduction method. Health is treated as an endogenous regressor and the dynamic model for health also allows for a direct effect of spousal bereavement. We find increased risks of morbidity and mortality after spousal bereavement. The loss of a partner reduces residual lifetimes with on average 12 percent, and increases the share unhealthy years in residual lifetime, primarily because healthy years are replaced by years having serious arthritis, diabetes and/or being complexly impaired.

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**Afaf Rahim**

“Adoption and Abandonment of Gum Agro Forestry in Sudan”

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*Abstract:*

Deforestation of the gum belt in Sudan is a serious problem that threatens agricultural production. Although several programs have been developed to rehabilitate the belt area, adoption of the gum agro forestry system has not been widespread. Many original adopters have abandoned gum production

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and the bush-fallow crop rotation that traditionally involves the gum tree. The paper focuses on the adoption of gum agro forestry and the abandonment of the same technology by farmers who have adopted it the past. We use farm level data from western Sudan and analyze gum adoption and abandonment using a bivariate probit model to identify the most important factors influencing the decisions on gum Arabic production and the traditional bush-fallow system. Empirical results show that gum (dis)adoption is determined not only structural factors like farm size and farm fragmentation but also by factors that affects the opportunity cost of labor. Market distance plays an important role in the decisions for gum adoption and abandonment, since opportunity costs of labor rise where market distance is nearer and alternatives to gum production become economically viable. Similarly, off-farm income has a negative and significant effect on continued adoption indicating that gum abandonment is related to the returns on alternative economic options. The study suggests that abandoning gum production should be understood in light of changes induced by drought in both the international markets for gum and the economic environment in the region.

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**Lev Ratnovski**

“Counter Cyclical Agency Costs and the Financial Channel of Cleansing in Recessions”

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*Abstract:*

We model the evolution of the composition of firms quality along the business cycle. Productivity shocks induce counter cyclical agency costs of external financing. In strong booms, both high- and low-productivity firms choose safe projects and there is no improvement in the composition of firms. Cleansing

takes place in the intermediate stages of economic cycle (mild recessions, slow expansions), when low-productivity firms choose riskier projects and have a high probability of going bankrupt. This creates a window of opportunity for entry of new firms, more productive on average. Deep depressions may, on the contrary, hurt the composition of firms in the economy due to an excessive exit effect, since some high-productivity firms are also tempted to gamble. We also show how fragility can build up during long booms, especially in less financially developed economies. We show that less financially developed economies experience less cleansing and hence lower average growth. Our results shed some light on the potential “overheating” danger of booms, and have strong implications for the role of stabilization policy. Some empirical evidence on the financial channel of cleansing is provided.

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**Ward Romp**, Robert Inklaar and Jan Jacobs

“Business Cycle Indexes: Does a Heap of Data Help”

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*Abstract:*

Business cycle indexes are used to get a timely and frequent description of the state of the economy and its likely development in the near future. This paper discusses two methods for constructing business cycle indexes, the traditional National Bureau of Economic Research (NBER) method and a recently developed dynamic factor model, and compares these methods for the euro area. The results suggest that a reliable index can be constructed from a limited number of series that are selected using economic logic. We next decompose this index to identify variables that seem to be driving the euro area cycle. This analysis reveals important differences across countries in these driving variables.

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**Jan Rouwendal**

“An Economic Analysis of Museum Visits”

Spatial Economics

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*Abstract:*

In this paper we analyze the demand for museum visits with data referring to owners of a special seasonal ticket, the so-called museumjaarkaart (MJK). This ticket provides free entrance to most of the Dutch museums. Our model specification assumes that the indirect utility function is separable in museum visits. This motivates a decision-making procedure in which trip generation and trip distribution (destination choice) can be interpreted as two stages. This procedure differs from the more conventional two-stage budgeting procedure. The method proposed here allows us to link the demand for museum visits to the accessibility of museums in terms of travel time from each location. Destination choice is explained by means of a mixed logit model. We find large differences between the distance decay parameters estimated for different museums and attribute them to the effects of holiday trips (not undertaken from the residential location) and to local interest for museums specializing in, for instance, the history of a small town. Preferences for museums with similar collections (for instance cultural history) are significantly correlated, as one would expect. Trip generation is explained by means of a count data model.

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**René Segers**, Richard Paap and Herman van Dijk

“Modeling Twentieth Century Economic Growth in Industrialized Countries:  
Exploiting Cross-Country Similarities”

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*Abstract:*

In this paper we study 20th century economic growth in 17 industrialized countries. Two stylized facts in the panel of these series seem to be predominant. Firstly, the long-run economic growth patterns of the countries seem to be nonlinear. Secondly, there seem to exist groups of countries with similar growth patterns over time. To describe both features, we propose a nonlinear latent class panel time series model, which allows for a data-based classification of countries based on common nonlinear long-run growth patterns. Our empirical results suggest that four clusters are sufficient to describe the different growth patterns of the countries considered.

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**Roger Smeets**, Eelke de Jong and Jeroen Smits  
“Culture and Openness”

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*Abstract:*

Previous literature on openness has mainly dealt with the consequences of openness. In this paper, however, we take openness as the dependent variable. We want to find out whether differences in openness among countries can be explained by differences in national culture among them. Using Quinn's (1997) data on openness and Hofstede's (1981,2001) four cultural dimensions, we conduct a cross-country analysis incorporating 54 countries over the period 1959-1997. We find that several aspects of culture have an impact on

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openness. Specifically, we find positive effects of individualism and negative effects of uncertainty avoidance on openness. Power distance seems to have a slight positive effect on openness as well. We do not find any robust effects of masculinity. These findings lead us to conclude that future research on openness should take account of cultural influences as well as economic ones.

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**Robert Sparrow**

“Protecting Education for the Poor in Times of Crisis: An Evaluation of a Scholarship Program in Indonesia”

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*Abstract:*

This paper analyses the impact of an Indonesian scholarship program, which was implemented to preserve access to education for the poor during the Southeast Asian economic crisis. Allocation followed a decentralized design that involved both geographic and individual targeting. The identification strategy exploits this decentralized structure, relying on instrumental variables constructed from regional (miss) targeting at the initial phase of allocation. The results show that allocation of scholarships was pro-poor, but with substantial leakage to the non-poor. The program has been successful in increasing enrolment, especially for primary school-aged children from poor rural households. Moreover, the scholarships seem to have assisted households in smoothing consumption during the crisis, relieving pressure on households' investments in education and utilization of child labor.

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**Elmer Sterken**

“Testing For Dominance in the Dutch Mortgage Market”

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*Abstract:*

We test for market leadership in the Dutch mortgage market. Using daily interest rate changes from October 1997 until June 2003 we test for asymmetric price and cost responses by four large Dutch banks for 5- and 10-year mortgage contracts. We find evidence of one dominant market leader.

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**Willemijn van der Straaten**

“Dual Earners, Urban Labor Markets and Housing Demand”

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*Abstract:*

In the period 1981-1998, the locational choices of highly educated people in the Netherlands are investigated. We find increasing concentration of such power couples in the urbanized western part of the country. This trend occurs in spite of the absence of an urban wage premium and the concentration of traffic congestion there. We find that power couples locate more often in medium sized and larger cities than otherwise comparable households and that they are relatively often owner-occupiers and live in more expensive houses. Their commuting time are relatively short when it is taken into account that it is more difficult for those households to find suitable arrangements of employment and residence than it is for single-earner

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households. A likely explanation for these findings is that power couples use their relatively large purchasing power to outbid other households from locations that are especially attractive to them, as is predicted by household location theory.

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**Bas Straathof**

“Schooling Inequality and the Rise of Research”

MERIT

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*Abstract:*

During the last twenty years the share of researchers in the workforce has been rising in OECD countries. The consistency of this pattern suggests that it is not a transitional phenomenon. This paper demonstrates that the rise of research can occur in the steady state when schooling inequality is declining. Comparative static analysis of a semi-endogenous growth model with a continuous distribution of skills shows that a reduction in skill inequality can have a variety of effects, which includes a rising share of researchers. Additionally, the height of the growth rate of mean educational attainment is shown to have a positive effect on the proportion of researchers in the workforce without causing it to grow.

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**Mewael Tesfaselassie**

“Rules Rather Than Discretion for Transparent Central Banks”

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*Abstract:*

Some central banks have taken steps toward a more transparent monetary policy including the publication of internal forecasts. This is despite the fact that, at least conceptually, it is still controversial whether transparency enhances stabilization policy. The argument for transparency seems to rest on the notion that transparency gives monetary authorities more discretion (that is, more room to maneuver) in conducting policy. We find this argument to be counterintuitive if we consider situations where forward-looking expectations are important in the transmission of monetary policy. We consider the conduct of monetary policy under discretion and commitment for a central bank that is transparent about upcoming shocks. We show that such a transparent central bank would find it optimal to commit to a simple rule rather than conduct policy by discretion.

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**Linda Toolsema**

“Competition with Mandatory Labeling of Genetically Modified Products”

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*Abstract:*

In April 2004, the European Union adopted a new legislative framework for genetically modified (GM) organisms. This framework regulates the placing on the market of GM products, and demands these products to be labeled as such. We present a duopoly model with vertical differentiation and mandatory labeling, where one firm produces a GM product and the other produces the conventional product. We assume the GM product to have lower marginal cost, and lower value to consumers. We analyze the effects of introducing the GM good on output, prices, and welfare. We also study contamination and costly testing of conventional goods.

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**Yin-Yen Tseng**

“The Valuation of Travel Time Reliability: Empirical Assessment of Work Trips in the Netherlands”

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*Abstract:*

The aim of this study is to measure the values of time reliability relevant attributes, such as schedule delay early, schedule delay late and travel time uncertainty in discrete choice analysis. We address the issue of heterogeneity in traveler’s preference on time reliability valuation. We start with taking the observed individual and trip characteristic attributes into account in the estimation by using a multinomial logit (MNL) approach. Then we advance the analysis by using a mixed multinomial logit model (MMNL), which is capable of accommodating the unobserved heterogeneity among travelers. The stated preference data obtained from the MD-PIT project in the Netherlands is used as our empirical assessment. The estimation results are also compared to our earlier findings in the meta-analysis of valuations of travel time reliability and schedule delay.

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**Qin Tu**

“Reference Points and Loss Aversion in Intertemporal Choice”

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*Abstract:*

Reference points and loss aversion are two essential and commonly used concepts in behavioral economics. In this paper, based on the insight of Loewenstein's (1988) reference point model, we construct a structural model for intertemporal choice with reference points and loss aversion by considering four scenarios: delay of gains; delay of losses; speed-up of gains; and speed-up of losses. We use panel data from a Dutch representative household survey for the period 1997-2002, containing rich information on individual time preferences and other characteristics, and a nonlinear random coefficients model to estimate reference points of delay and speedup, the coefficient of loss aversion and discount rates. We find that on average the reference point of delay is larger than speedup, consistent with the hypothesis of Loewenstein. The mean of coefficient of loss aversion is around two, females are more loss averse than males, and high education and aging make people less loss averse. In addition, high educated or older people are more patient.

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**Maarten Vendrik**

“Identification, Screening and Stereotyping in Labor Market Discrimination”

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*Abstract:*

This paper develops a theoretical model to explain why a strengthening of market competition may lead to more discrimination in the labor market. It integrates a for economists ‘new’ social-psychological process with a counteracting ‘economic’ mechanism into a microeconomic utility-maximizing model. The basic assumption is that when an employer feels uncertain about his profit, he has in his hiring and pay decisions two distinct

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possibilities to reduce this uncertainty. First, he may identify himself more strongly with a salient group he belongs to (his in-group). This induces him to rely more on stereotypic perceptions and prejudices, and hence to discriminate more against the out-group. Second, he may raise his expenditures on screening individual applicants. This diminishes his use of stereotypic perceptions, and hence his discrimination against the out-group. The model determines simultaneous equilibrium levels of in-group identification and screening expenditures in a context of competing profit-sharing teams. Increasing competition on the supply side of the product market makes the team members more uncertain about their profits, but also raises the opportunity cost of screening expenditures. The latter rise elicits substitution of in-group identification for screening expenditures, and hence enhances discrimination. Some experimental and empirical evidence of the effects implied by the model is briefly discussed.

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**Erik Verhoef**

“Second-Best Congestion Pricing Schemes in the Mono-Centric City”

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*Abstract:*

This paper considers second-best congestion pricing in the monocentric city with endogenous residential density and endogenous labor supply. A spatial general equilibrium model is developed that allows consideration of the three-way interactions between urban density, traffic congestion and labor supply. Congestion pricing schemes are analyzed that are second best ‘by design’ (and not because distortions exist elsewhere in the spatial economy), like cordon charging and flat kilometer charges. Both for Cobb-Douglas utility and for CES utility, the analyses suggest that the relative welfare losses from second-best pricing, compared to first-best pricing, are surprisingly small.

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**Suncica Vujic**

“Modeling the Cyclical Behavior in Crime and Macroeconomic Data”

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*Abstract:*

This paper focuses on modeling the macroeconomic linkages between property crime and economic activity indicators using the unobserved components (UC) time series models. Existing investigations of cyclical behavior in crime data relate analyzed crime series to consumption, GDP and/or unemployment rates and conclude that criminal offences are sensitive to the cycle in economic activity. To study this behavior in recorded burglary data for England and Wales, in the period 1950 to 2001, we adopt both univariate and multivariate time series approaches within the UC models. Univariate time series analysis shows that next to the short cycle, which coincides with a business cycle pattern, there might also be a longer cycle of about 12 years that affects the recorded burglary data. In the multivariate framework, the recorded burglary series is simultaneously modeled in a trivariate approach, where unemployment and consumption data indicators also act as dependent variables. We think that variables like unemployment and consumption, which show important volatility in the overall economic behavior and thus have significant effects on crime, are better modeled as endogenous. We conclude that the cyclical behavior of recorded burglary data is fully determined by the cycles in consumption and unemployment.

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**Daniël van Vuuren**

“Retirement Behavior in the Netherlands: A Quasi-Natural Experiment”

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*Abstract:*

From the late seventies until the nineties early retirement benefits in the Netherlands were provided by VUT schemes, which were financed on a pay-as-you-go basis. In the late nineties these VUT schemes were replaced by prepension schemes. The prepension schemes are based on capital funding and are consequently more actuarially fair than the VUT schemes: postponing retirement results in a higher benefit. At the same time, the average replacement rates are lower in the prepension schemes. To spare elderly employees transitional arrangements were introduced. The moment of introduction of the prepension schemes varied by sector. We exploit this fact to estimate the effect of the introduction on the early retirement behavior. For this we use administrative data (Income Panel Survey) from the Dutch National Tax Office and a unique overview of replacement rates in the VUT schemes, prepension schemes and transitional arrangements.

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**Dinand Webbink**

“Born on the First of October: Using a School Entry Rule for Estimating the Returns to Education”

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*Abstract:*

Dutch primary education uses a cut-off date for entering grade 3. Pupils who turn age seven before October 1 may enter on August 1. Pupils who will turn seven on or after October 1 have to wait a year before enrolling in grade 3. This rule provides exogenous variation in educational attainment. Persons born in August or September on average follow 2 months more education than persons born in October or November. Those persons born just before the cut-off date more often graduate in intermediate vocational education (MBO). Using an instrumental variable approach we find that the returns to education are 9.8 percent per year.

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**Bas ter Weel**

“People People”

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*Abstract:*

This paper develops a framework to understand the role of interpersonal interactions in the labor market, including task assignment and wages, and the labor-market position of women and ethnic minorities. We model the effectiveness of interactions between people as a trade off between caring and decisiveness in which both inputs into interpersonal interactions can be either beneficial or detrimental. Caring is needed to build up confidence and establish cooperation, but is vulnerable to losing proximity in case others have to be criticized; decisiveness is needed to provide plain information in a non-oblique and non-evasive manner. An analysis of occupation changes in the importance of caring and decisiveness over time suggests that both inputs in effective interpersonal interactions are increasing, but decisiveness becomes relatively more important than caring. In accordance with the rising relative input of decisiveness, the returns to being decisive are relatively increasing.

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Consistent with our model, we find that as the caring-type of interpersonal interaction becomes relatively more important, the women's share of an occupation increases, but the employment shares of blacks, Hispanics, immigrants, and people with poor English decrease. We also show in an assignment context that within relatively caring jobs, the relative importance of caring is positively rewarded but that overall labor demand and supply may lead to a negative effect of being relatively caring on wages. We present evidence that within occupations that have experienced a faster increase in computer technology adoption the importance of interpersonal interactions has become more important, especially the importance of directness. Lastly, we present evidence that persons who are more sociable at young ages are more likely to supervise others at work, less likely to have supervisors themselves, and have greater authority over the people they supervise.

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**Michel van der Wel** and Siem Jan Koopman

“Estimation and Simulation Procedures for Affine Term Structure Models”

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*Abstract:*

Within the class of dynamic term structure models there exists the family of Affined Term Structure (ATS) models. These models are characterized by their affined structure: the observed yield to maturity is an affined function of the unobserved short rate. Furthermore, it is assumed that the unobserved short rate follows a diffusion process. This set up is convenient for state-space analysis. Four classical models are selected, two Gaussian models and two non-Gaussian models. As a starting point all four models are estimated using quasi-maximum-likelihood (QML). Recently, Particle Filtering (PF) in the context of ATS models is also used to make inferences, without the assumptions needed in the case of QML. However, parameter estimation is

cumbersome for the PF. We develop an alternative technique based on the EM algorithm. We will study the performance of this algorithm and present the obtained results. Finally, the fit of the four selected ATS models is compared with a benchmark model and a common factor model.

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**Edwin van der Werf** and Sjak Smulders

“Can Kyoto Lead to a Higher Growth Rate? The Effects of a CO<sub>2</sub> Emission Constraint When Fossil Fuels are Imperfect Substitutes”

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*Abstract:*

In this paper we study the effect of a carbon emission constraint on an economy when nonrenewable carbon inputs like oil and gas are imperfect substitutes. An emission constraint leads to a downward jump in income, which will be larger when the constraint is tighter. However, the growth rate of income generally jumps up and will be higher when the constraint is tighter. The loss of welfare from the constraint will be larger the more the relative size of the stocks of the two carbon inputs differs from relative productivity or relative carbon contents.

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**Fleur Wouterse**

“Migration for Survival or Accumulation: Evidence From Burkina Faso”

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*Abstract:*

Burkina Faso has a long history of migratory movement. Recently, the role of migration in economic development in terms of remittances and brain gain has received much attention. In this paper we argue that in order to take into consideration the contribution that migration could make to the economic development of Burkina Faso an understanding at the micro level is needed of migratory movement. Research at the micro level has been carried out through surveying 223 households in four villages on the Central Plateau. The results of the survey imply that a distinction needs to be made between two forms of migration: intercontinental and continental. Heterogeneity in migration is caused by heterogeneity in rural households. An economic household model incorporating both forms of migration has been developed. Econometric findings suggest that continental migration is embarked on by comparatively poor households in response to a lack of work and insufficient income. Intercontinental migration takes place in comparatively wealthy households in response to opportunities for accumulation of wealth in Europe.

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**Chendi Zhang**

“Betting Odds as Predictors for Stock Returns”

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*Abstract:*

Corporate finance textbooks tell us that the value of an asset is the sum of all future discounted cash flows. Therefore, if markets are efficient (in the semi-strong form), release of information about expected future cash flows should have an impact on prices. Listed soccer clubs provide a unique means to study market reaction to various type of information about future cash flows. Among these pieces of information are firm performances (that is, field results) and beliefs about firm performances (that is, bookmaker's betting

odds). The objective of this paper is to compare how prices react to these two types of news, and to investigate if the market is efficient in pricing the news.

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**Romy Zhang**, Piet Rietveld and Erik Verhoef

“How Do People Perceive the Benefits of Road Traffic Information?: A Pilot Study”

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*Abstract:*

The paper presents the results of a pilot study conducted for an experiment carried out in a travel simulator laboratory. In the experiment, the participants decide whether to buy information that removes travel time uncertainty at a certain price, when facing a route choice between a shorter but uncertain and a longer but certain route. The experiment aims at gaining knowledge on how people evaluate information. The study employs a Stated Preference (SP) approach, the main purpose of which is to test various aspects of the experiment. The results of the pilot have suggested that the design of the TSL experiment is feasible, the attribute levels characterizing the routes possess favorable statistical properties, and the behavioral rules assumed for the respondents are appropriate. With the data obtained from the pilot, we estimated a mixed logit model. It reveals that the nested structure we have proposed is able to describe the information-purchasing behavior. Preliminary estimates show that information price, which is varied around the expected value of information, affects the participant's utility in a negative way, as expected. There are also a number of aspects to be revised/improved in the formal experiment. One of the most important lessons learned is that the survey questions should be more carefully worded to avoid confusion from the side of the participants.

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