Levy Economics Institute of Bard College

# Summary

Winter 2011 Vol. 20, No. 1

## Contents

**INSTITUTE RESEARCH**

**Program: The State of the US and World Economies**

5 JAN KREGEL, An Alternative Perspective on Global Imbalances and International Reserve Currencies

6 JESUS FELIPE, UTSAV KUMAR, NORIO USUI, and ARNELYN ABDON, Why China Has Succeeded—and Why It Will Continue to Do So

7 JÖRG BIBOW, How to Sustain the Chinese Economic Miracle? The Risk of Unraveling the Global Rebalancing

8 JESUS FELIPE, Asia and the Global Crisis: Recovery Prospects and the Future

9 PAOLO CASADIO and ANTONIO PARADISO, The Household Sector Financial Balance, Financing Gap, Financial Markets, and Economic Cycles in the US Economy: A Structural VAR Analysis

**Program: Monetary Policy and Financial Structure**

10 L. RANDALL WRAY, What Should Banks Do? A Minskyan Analysis

11 MICHAEL HUDSON, Why the IMF Meetings Failed, and the Coming Capital Controls

11 MARSHALL AUERBACK, A New "Teachable" Moment?

12 MARC LAVOIE, Changes in Central Bank Procedures during the Subprime Crisis and Their Repercussions on Monetary Theory

13 L. RANDALL WRAY, What Do Banks Do? What Should Banks Do?

13 ANDREA TERZI, The "Keynesian Moment" in Policymaking, the Perils Ahead, and a Flow-of-funds Interpretation of Fiscal Policy

14 DIRK BEZEMER and GEOFFREY GARDINER, Innocent Frauds Meet Goodhart's Law in Monetary Policy

15 SUNANDA SEN, The Meltdown of the Global Economy: A Keynes-Minsky Episode?

16 JÖRG BIBOW, A Post Keynesian Perspective on the Rise of Central Bank Independence: A Dubious Success Story in Monetary Economics

17 SUNANDA SEN, Managing Finance in Emerging Economies: The Case of India

18 MICHAEL HUDSON, How Brazil Can Defend Against Financialization and Keep Its Economic Surplus for Itself

**Program: The Distribution of Income and Wealth**

19 FRANCISCO AZPITARTE, Measuring Poverty Using Both Income and Wealth: An Empirical Comparison of Multidimensional Approaches Using Data for the US and Spain

**Levy Institute Measure of Economic Well-Being**

20 THOMAS MASTERSON, Quality of Match for Statistical Matches Used in the 1999 and 2005 LIMEW Estimates for Canada

*Continued on page 3* ▸

## Scholars by Program

### The State of the U.S. and World Economies

DIMITRI B. PAPADIMITRIOU, President and Program Director
JAMES K. GALBRAITH, Senior Scholar
JAN KREGEL, Senior Scholar
L. RANDALL WRAY, Senior Scholar
GREG HANNSGEN, Research Scholar
GENNARO ZEZZA, Research Scholar
MARSHALL AUERBACK, Research Associate
CLAUDIO H. DOS SANTOS, Research Associate
MICHAEL HUDSON, Research Associate
ROBERT W. PARENTEAU, Research Associate

### Monetary Policy and Financial Structure

JAN KREGEL, Senior Scholar and Program Director
DIMITRI B. PAPADIMITRIOU, President
PHILIP ARESTIS, Senior Scholar
JAMES K. GALBRAITH, Senior Scholar
L. RANDALL WRAY, Senior Scholar
MARSHALL AUERBACK, Research Associate
JÖRG BIBOW, Research Associate
STEVEN M. FAZZARI, Research Associate
MICHAEL HUDSON, Research Associate
THOMAS I. PALLEY, Research Associate
ROBERT W. PARENTEAU, Research Associate
SUNANDA SEN, Research Associate
WILLEM THORBECKE, Research Associate
ÉRIC TYMOIGNE, Research Associate

### The Distribution of Income and Wealth

JAMES K. GALBRAITH, Senior Scholar
EDWARD N. WOLFF, Senior Scholar
DIMITRI B. PAPADIMITRIOU, President
AJIT ZACHARIAS, Senior Scholar
SELCUK EREN, Research Scholar
THOMAS MASTERSON, Research Scholar
BARRY BLUESTONE, Research Associate
ROBERT HAVEMAN, Research Associate
CHRISTOPHER JENCKS, Research Associate
SUSAN E. MAYER, Research Associate
BRANKO MILANOVIC, Research Associate
JACQUES SILBER, Research Associate
BARBARA WOLFE, Research Associate

### Gender Equality and the Economy

RANIA ANTONOPOULOS, Research Scholar and Program Director
DIMITRI B. PAPADIMITRIOU, President
NILÜFER ÇAĞATAY, Senior Scholar
KIJONG KIM, Research Scholar
LEKHA S. CHAKRABORTY, Research Associate
PINAKI CHAKRABORTY, Research Associate
VALERIA ESQUIVEL, Research Associate
INDIRA HIRWAY, Research Associate
TAMAR KHITARISHVILI, Research Associate
FERIDOON KOOHI-KAMALI, Research Associate
EMEL MEMIS, Research Associate
FATMA GÜL ÜNAL, Research Associate
IMRAAN VALODIA, Research Associate
TAUN TOAY, Research Analyst

### Employment Policy and Labor Markets

DIMITRI B. PAPADIMITRIOU, President
JAMES K. GALBRAITH, Senior Scholar
JAN KREGEL, Senior Scholar
L. RANDALL WRAY, Senior Scholar
RANIA ANTONOPOULOS, Research Scholar
MARSHALL AUERBACK, Research Associate
VALERIA ESQUIVEL, Research Associate
MATHEW FORSTATER, Research Associate
FADHEL KABOUB, Research Associate
PAVLINA R. TCHERNEVA, Research Associate

### Immigration, Ethnicity, and Social Structure

JOEL PERLMANN, Senior Scholar and Program Director
DIMITRI B. PAPADIMITRIOU, President
YUVAL ELMELECH, Research Associate
YINON COHEN, Research Associate
SERGIO DELLAPERGOLA, Research Associate
SANJAYA DESILVA, Research Associate
BARBARA S. OKUN, Research Associate
SEYMOUR SPILERMAN, Research Associate

### Economic Policy for the 21st Century

JAMES K. GALBRAITH, Senior Scholar
DIMITRI B. PAPADIMITRIOU, President
RANIA ANTONOPOULOS, Research Scholar
PHILIP ARESTIS, Senior Scholar
MARSHALL AUERBACK, Research Associate
WILLIAM J. BAUMOL, Research Associate
JÖRG BIBOW, Research Associate
BARRY BLUESTONE, Research Associate
ROBERT E. CARPENTER, Research Associate
LEKHA S. CHAKRABORTY, Research Associate
PINAKI CHAKRABORTY, Research Associate
SANJAYA DESILVA, Research Associate
STEVEN M. FAZZARI, Research Associate
MATHEW FORSTATER, Research Associate
GREG HANNSGEN, Research Scholar
THOMAS KARIER, Research Associate
STEPHANIE A. KELTON, Research Associate
WILLIAM H. LAZONICK, Research Associate
JAMEE K. MOUDUD, Research Associate
MARY O'SULLIVAN, Research Associate
THOMAS I. PALLEY, Research Associate
ROBERT W. PARENTEAU, Research Associate
JAMES B. REBITZER, Research Associate
MALCOLM SAWYER, Research Associate
WILLEM THORBECKE, Research Associate
W. RAY TOWLE, Research Associate and Editor
ÉRIC TYMOIGNE, Research Associate
L. RANDALL WRAY, Senior Scholar
AJIT ZACHARIAS, Senior Scholar

### Equality of Educational Opportunity in the 21st Century

ELLEN CONDLIFFE LAGEMANN, Senior Scholar and Program Director
DANIEL KARPOWITZ, Research Associate

---

The Levy Economics Institute of Bard College, founded in 1986, is a nonprofit, nonpartisan research organization devoted to public service. Through scholarship and economic research it generates viable, effective public policy responses to important economic issues that profoundly affect the quality of life in the United States and abroad.

The *Summary* is published three times a year (Winter, Spring, and Fall) and is intended to keep the academic community informed about the Institute's research. To accomplish this goal, it contains summaries of recent research publications and reports on other activities.

Editor: W. Ray Towle    Text Editor: Barbara Ross

The *Summary* and other Levy Institute publications are available on the Institute's website.
To comment on or inquire about publications, research, and events, contact the Institute online at www.levyinstitute.org.

Levy Economics Institute of Bard College, Blithewood, Annandale-on-Hudson, NY 12504-5000
Phone: 845-758-7700, 202-887-8464 (in Washington, D.C.)  Fax: 845-758-1149  E-mail: info@levy.org  Website: www.levyinstitute.org

## Contents (continued)


20 THOMAS MASTERSON, Quality of Match for Statistical Matches Used in the 1992 and 2007 LIMEW Estimates for the United States

**Program: Gender Equality and the Economy**

21 SUNANDA SEN, Gendered Aspects of Globalization

**Program: Employment Policy and Labor Markets**

22 JAMES B. REBITZER and LOWELL J. TAYLOR, Extrinsic Rewards and Intrinsic Motives: Standard and Behavioral Approaches to Agency and Labor Markets

23 TAMAR KHITARISHVILI, Assessing the Returns to Education in Georgia

24 RANIA ANTONOPOULOS, KIJONG KIM, THOMAS MASTERSON, and AJIT ZACHARIAS, Investing in Care: A Strategy for Effective and Equitable Job Creation

24 JESUS FELIPE and UTSAV KUMAR, A Reassessment of the Use of Unit Labor Costs as a Tool for Competitiveness and Policy Analyses in India

**Program: Immigration, Ethnicity, and Social Structure**

25 JOEL PERLMANN and YUVAL ELMELECH, Immigrant Parents' Attributes versus Discrimination: New Evidence in the Debate about the Creation of Second Generation Educational Outcomes in Israel

**Program: Economic Policy for the 21st Century**

**Explorations in Theory and Empirical Analysis**

25 JESUS FELIPE, UTSAV KUMAR, and ARNELYN ABDON, Using Capabilities to Project Growth, 2010–30

26 JESUS FELIPE, UTSAV KUMAR, and ARNELYN ABDON, As You Sow So Shall You Reap: From Capabilities to Opportunities

27 ARNELYN ABDON, MARIFE BACATE, JESUS FELIPE, and UTSAV KUMAR, Product Complexity and Economic Development

28 JESUS FELIPE and UTSAV KUMAR, Technical Change in India's Organized Manufacturing Sector

28 MICHAEL HUDSON, The Transition from Industrial Capitalism to a Financialized Bubble Economy

30 JESUS FELIPE and UTSAV KUMAR, The Role of Trade Facilitation in Central Asia: A Gravity Model

30 JESUS FELIPE and UTSAV KUMAR, The Impact of Geography and Natural Resource Abundance on Growth in Central Asia

31 NEDELYN MAGTIBAY-RAMOS, GEMMA ESTRADA, and JESUS FELIPE, Exploring the Philippine Economic Landscape and Structural Change Using the Input-Output Framework

**INSTITUTE NEWS**

32 **New Research Associates**

**Upcoming Events**

33 20th Annual Hyman P. Minsky Conference, April 13–15, 2011

33 The 2011 Hyman P. Minsky Summer Seminar, June 18–26, 2011

**New Levy Institute Book**

33 The Elgar Companion to Hyman Minsky

**PUBLICATIONS AND PRESENTATIONS**

34 Publications and Presentations by Levy Institute Scholars

## LETTER FROM THE PRESIDENT

**To our readers:**

This issue begins with a public policy brief under the State of the US and World Economies program. Senior Scholar Jan Kregel finds that export-led growth and free capital flows are the real causes of sustained international imbalances. The only way out of this predicament is to shift to domestic demand–led development strategies—and capital flows will have to be part of the solution. China's surpluses would have been eliminated if an automatic price-adjustment process based on exchange-rate flexibility had been in place, he says.

There are four working papers under this program. Jesus Felipe, Utsav Kumar, Norio Usui, and Arnelyn Abdon analyze the evolution of Chinese exports, focusing on the sophistication of China's export basket and the number of products with comparative advantage. Research Associate Jörg Bibow concludes that the notion that China, and the renminbi-dollar exchange rate, is the primary cause of global trade imbalances is misguided. In another paper, Felipe finds that Asian countries are not decoupling from the rest of the world and that countries such as China need to rebalance their economies. Paolo Casadio and Antonio Paradiso investigate the impact of private net saving on the GDP cycle in the United States, and find that household and nonfinancial corporate balances react in a way that is consistent with Hyman P. Minsky's theory of financial instability and financial cycles.

The Monetary Policy and Financial Structure program begins with a brief by Senior Scholar L. Randall Wray. He examines the later works of Minsky, with a focus on Minsky's general approach to banking and the proper role of the financial system. Minsky recognized that the development of money manager capitalism led to a convergence of banking models—an insight that helps to explain the current economic crisis. In a policy note, Research Associate Michael Hudson warns that the standoff at recent International Monetary Fund (IMF) meetings in Washington could result in the most serious rupture of the global financial system since 1933. In another note, Research Associate Marshall Auerback warns that if the new GOP Congress cuts government spending now, *deficits will go higher*, as growth slows, automatic stabilizers kick in, and tax revenues fall farther.

Eight working papers are included under this program. Marc Lavoie finds that the Fed lost control over the federal funds rate and that most mainstream monetary theory that applies to central banking is worthless. A paper by Wray was used as the background for his brief that appears at the beginning of this program. Andrea Terzi claims that government actions only marginally reflect John Maynard Keynes's theoretical framework and are destined to be ineffectual if the political tolerance for fiscal deficits is too low for full employment. Dirk Bezemer and Geoffrey Gardiner examine two innocent-fraud episodes in British monetary policy and see no evidence that quantitative easing works. Research Associate Sunanda Sen focuses on some theoretical concerns relating to deregulated financial institutions and financial engineering, and finds a need to replace speculation with real activity involving physical assets rather than financial assets. Bibow finds a lack of empirical evidence to support the New Classical economists' perceived success of central bank independence. In a second paper, Sen outlines India's integration with the global financial market and the systemic risks and social costs in managing its liberal financial sector. Hudson urges the BRIC countries to isolate themselves from global debt creation, believing that the World Bank and IMF are committed to a destructive economic philosophy under the banners of "free trade" and "open capital markets."

In a working paper under the Distribution of Income and Wealth program, Francisco Azpitarte examines the implications of multidimensional approaches to measuring poverty based on income and wealth for the United States and Spain. In two papers associated with a project supported by the Sloan Foundation, Research Scholar Thomas Masterson describes the construction of synthetic datasets used in estimating the Levy Institute Measure of Economic Well-Being for Canada and the United States.

In a working paper under the Gender Equality and the Economy program, Sen finds that sweeping economic reforms have contributed to the gender gap, and that prevailing stereotypes have to be confronted before the gender imbalance pervading official policies and social norms can be redressed.

There are four working papers under the Employment Policy and Labor Markets program. Research Associate James B. Rebitzer and Lowell J. Taylor find that the introduction of behavioral features into agency models leads to novel and important results. Research Associate Tamar Khitarishvili finds that returns to education in Georgia are very low compared to those in other transition countries. Research Scholars Rania Antonopoulos, Kijong Kim, and Thomas Masterson, and Senior Scholar Ajit Zacharias present a working paper used as the background for their brief about a social-care investment strategy for job creation that appeared in the Spring 2010 *Summary*. Felipe and Kumar determine that any real loss in the competitiveness of India's manufacturing sector is related to capital and the real profit rate rather than to labor costs.

In a working paper under the Immigration, Ethnicity, and Social Structure program, Senior Scholar Joel Perlmann and Research Associate Yuval Elmelech determine that premigration parental characteristics must be part of the explanation for the gap in educational attainment in Israel.

There are eight working papers under the Economic Policy for the 21st Century program. Hudson proposes that fiscal policy should recapture the site value of land in response to spending on public infrastructure and the general level of prosperity. The remaining papers are from various authors associated with the Asian Development Bank that focus on structural transformation, the sophistication and diversification of a country's export basket, and the opportunities for future growth based on a set of capabilities. Specific regions and countries covered include Central Asia, India, and the Philippines.

As always, I welcome your comments and suggestions.

Dimitri B. Papadimitriou, *President*

# INSTITUTE RESEARCH

## Program: The State of the US and World Economies

### An Alternative Perspective on Global Imbalances and International Reserve Currencies

JAN KREGEL

Public Policy Brief No. 116, 2010

The stability of the international reserve currency's purchasing power is less a question of what serves as that currency and more a question of the international adjustment mechanism, as well as the compatibility of export-led development strategies and international payment balances. According to Senior Scholar Jan Kregel, export-led growth and free capital flows are the real causes of sustained international imbalances. The only way out of this predicament is to shift to domestic demand–led development strategies—and capital flows will have to be part of the solution.

Kregel outlines the effects of the gold-exchange standard and the Bretton Woods system in resolving global imbalances. In terms of the gold standard, the international balance-of-payments adjustment mechanism based on arbitrage failed to solve the problem. According to John Maynard Keynes, it was the level of domestic activity, not arbitrage, that acted as the mechanism of price adjustment. The asymmetry between surplus and deficit countries meant that the adjustment process reduced the global level of activity, primarily through lower output and employment. This implied that the stability of the international purchasing power of financial claims was preserved at the expense of the value of labor.

To restore equilibrium, Keynes recommended a clearing union, whereby the costs of adjustment would be borne equally by all countries, and by capital and labor. The Bretton Woods system instead resorted to managing the adjustment process. The imposition of par values for the US dollar or gold for current-account convertibility meant that deficits were constrained by the size of a country's foreign-exchange reserves and drawings from the International Monetary Fund (IMF). However, this system preserved the asymmetric adjustment under the gold standard because it placed no active constraint on the reserve balances of surplus countries or on the size of the US external imbalance.

But as pointed out by Robert Triffin, there was a practical limit to accumulating dollars when the United States was unable to meet the outstanding claims in gold at parity. Triffin's paradox is that it is impossible to have the dollar as the source of global liquidity and to fix the dollar's value in terms of gold when there is a growing global economy that requires an expansion of international liquidity. An important corollary of this paradox is that the stability of the reserve currency's purchasing power is linked to an adjustment mechanism that eliminates international imbalances; it has little to do with what actually serves as the international currency.

Resolving Triffin's paradox meant abandoning the fixed-rate system that provided the constraints on global imbalances and moving to floating exchange rates and unregulated international capital flows. Instead of IMF intervention and conditionality, a new, market-based adjustment mechanism came into play. Interest-rate differentials generated capital inflows, leading to higher foreign-exchange reserves and an appreciating exchange rate. This approach led to further deterioration in the external accounts and to exchange-rate appreciation, thus reinforcing investor belief in the stability of the process. The size of a country's deficit post–Bretton Woods is determined by investor confidence that a country can continue to increase its foreign borrowing in order to meet its debt-service commitments—what Hyman P. Minsky would have called a "Ponzi" scheme.

When developing countries adopt a strategy supporting domestic industrialization by promoting net exports based on a competitive exchange rate, they forego any guarantee that the purchasing power of their external claims will remain stable. The successful pursuit of these policies requires a distortion of prices, exchange rates, or global demand, and of the purchasing power of the resulting surpluses. Changing the international currency is not a solution to the (declining) value of accumulated surpluses, says Kregel, because the problem is caused by the absence of an international adjustment mechanism that is compatible with the full utilization of global resources. China's surpluses would have been eliminated if an automatic price-adjustment process based on exchange-rate flexibility had been in place. Due to the Triffin paradox, China cannot escape the dollar losses of its foreign-exchange reserves any more than central banks could under Bretton Woods.

*www.levyinstitute.org/pubs/ppb_116.pdf*

## Why China Has Succeeded—and Why It Will Continue to Do So

JESUS FELIPE, UTSAV KUMAR, NORIO USUI,
and ARNELYN ABDON
Working Paper No. 611, August 2010

China's high output growth rates are a result of capital accumulation, export-led growth policies, and industrialization. Jesus Felipe, Utsav Kumar, Norio Usui, and Arnelyn Abdon, Asian Development Bank, Manila, Philippines, analyze the evolution of Chinese exports since the 1960s, focusing on the sophistication of China's export basket and the number of products with comparative advantage (i.e., diversification). They find that China's productive structure was already complex in the 1960s, setting the stage for high growth.

The authors observe that some form of government intervention underlies all successful cases of structural transformation. China's spectacular performance was the result of industrial policies that allowed the accumulation of product-specific capabilities. Moreover, the country is positioned to continue performing well if policymakers focus more on employment creation and structural transformation than on growth targets.

Structural transformation has three components: shifts in output structures, shifts in employment structures, and diversification of the production and export baskets. A product's level of sophistication is calculated as a weighted average of the GDP per capita of the countries that export said product. The sophistication of a country's export basket is calculated as the weighted average of the level of sophistication of the products that a country exports. The authors find that given China's income per capita, its export package is very sophisticated and unique, and that the true driver of growth has been the increase in sophistication of the country's export basket.

Diversification is measured as the absolute number of products that a country exports with comparative advantage. In the early 1960s, China already exported a significant number of such products. By 2006, the number (269) was only marginally below that of Italy and Spain—some of the most diversified countries in the world—and higher than that of Japan and Korea. Many of these products (100) represented "core" commodities (e.g., machinery and metal products). China continues to export a number of products with comparative advantage that are labor intensive, as well as core commodities and telecommunications, electronic, industrial, and office equipment. Japan, Singapore, Korea, Malaysia, and Hong Kong export more unique products than China but they export fewer products with comparative advantage.

The product-space model is a path-dependent process that uses network theory to produce a graphical representation of all products exported worldwide. Peripheral products that are weakly connected to other products (e.g., raw materials) provide countries with nature-based comparative advantage. Core products that are closely connected with other products lead to manmade comparative advantage. A country's position in product space signals its capacity for structural transformation. When China began to produce core products, it diversified and upgraded its export basket quickly. Now it has a strong comparative advantage in both core products and peripheral products that are labor intensive.

The most remarkable change occurred in the 1985–90 period, when China began to manufacture electronics. This and other events fostered an increasing capacity to master and accumulate capabilities, along with the role played by industrial policies such as "export processing zones" and participation in global value chains. Although socialist controls and regulations inhibited private enterprise, they provided a solid foundation for growth (e.g., economic decentralization, access to education, and a high female labor force–participation rate).

The authors note that there is room for China to continue to increase the number of exports with comparative advantage, and that growth will remain strong. However, inequalities are rising, there are serious environmental concerns, and its "market" economy does not include the allocation of capital. They recommend that the government tailor policies and tools by sector, and implement policies in collaboration with the private sector in order to improve the chances of success.

*www.levyinstitute.org/pubs/wp_611.pdf*

## How to Sustain the Chinese Economic Miracle? The Risk of Unraveling the Global Rebalancing

JÖRG BIBOW

Working Paper No. 617, September 2010

China, and the renminbi-dollar exchange rate, has been cited as the primary cause of global trade imbalances. According to Research Associate Jörg Bibow, this notion is misguided. China has led the global recovery by boosting domestic demand to offset the slump in exports, and it is rebalancing its economy without affecting the global economy. What remains in the Chinese rebalancing process is the redirection of domestic demand toward private consumption, using policies that boost household disposable income. Renminbi stability and capital-account management should continue, so that the government can implement heterodox macroeconomic policies for domestic growth and development.

Bibow outlines China's economic progress since the 1980s and notes that growth has been capital intensive rather than labor intensive. He singles out three factors behind China's fast-track development: industrial policies, controlled integration into the global economy, and heterodox macroeconomic management. The country's growth strategy has been based on developing its industrial capabilities rather than focusing on prevailing comparative advantages. China has been the primary destination for foreign direct investment (FDI) and an important source of FDI for other developing countries. The significance of China's export trade reflects its role as the foremost assembly hub in regional supply chains, where the final goods produced for export are destined for Europe and the United States.

The renminbi's peg to the dollar has provided the key external anchor in China's development strategy. Moreover, China's financial system has been tightly regulated, so that the authorities have been able to target credit controls in support of development plans. Furthermore, the country has defied the Washington Consensus's faith in unfettered market forces, while continuing to attract the international business community.

Bibow notes that there has been long-term appreciation of China's real effective exchange rate, and that, since 2000, US exports to China have grown at a faster rate than US imports from China. He also notes that Europe and Canada have far greater market shares of US exports than China has, and that more than 25 percent of US exports are destined for Europe. Thus, the United States is much more dependent on the situation in Europe than on the renminbi's exchange rate.

Focusing on bilateral trade imbalances is misguided, says Bibow. China's trade and current account surpluses have only attained global significance since the mid-2000s. Moreover, Germany and Japan have relied exclusively on net exports to generate meager GDP growth, while suffering protracted domestic-demand stagnation. In the context of the global crisis, the "rich four"—Germany, Japan, the Netherlands, and Switzerland—appear to be behind the reemergence of global imbalances.

The collapse in global trade severely impacted China, but state authorities responded quickly and decisively in terms of a (highly successful) macroeconomic stimulus package. In the aftermath of the crisis, China's growth has been sponsored exclusively by domestic demand, whereas Germany's growth is driven almost exclusively by net exports; that is, China is sponsoring Germany's recovery. Furthermore, Europe's sovereign debt crisis is causing the euro's slump, and the crisis is a consequence of Germany's competitive (underbidding) strategy since the euro's launch. The key point is that China is on track to rebalance its economy; Germany, however, is basing its growth on net exports, and its trade surplus, as a share of GDP, is rising again. While China has played a constructive part in rebalancing the global economy, Germany has merely switched export sponsors. Ironically, Germany criticizes China for containing imports, while starving its domestic economy and traditional export markets within Europe. Perhaps China's real challenge is containing external drags on its growth rather than amplifying imports through exchange-rate appreciation.

According to Bibow, increased competition in product markets helps to contain cost-push inflation, and a gradual nominal renminbi appreciation could play some role here. He also suggests a renminbi-currency peg to a currency basket that reflects competitiveness trends vis-à-vis China's main trading partners. Rebalancing trade and sustaining economic development should be driven by expenditures—that is, by growth-oriented macroeconomic policies.

*www.levyinstitute.org/pubs/wp_617.pdf*

## Asia and the Global Crisis: Recovery Prospects and the Future

JESUS FELIPE

Working Paper No. 619, September 2010

Jesus Felipe, Asian Development Bank, Manila, Philippines, analyzes how Asia has been affected by the global economic crisis, Asia's prospects for recovery, and the key factors determining the region's performance in the medium and long term. He finds that Asian countries are not decoupling from the rest of the world and that countries such as China need to rebalance their economies. Policymakers must understand that long-term growth is a process of structural transformation and implement policies leading to full employment.

According to the International Labour Organization, the expected 2010 global recovery in output masks a net loss of 20 million jobs, in combination with 40 million jobs at risk. And despite optimistic forecasts from the Asian Development Bank, the crisis spread to Asia in 2008 when exports collapsed, tourism fell, the demand for immigrant labor declined, and private external capital flows slowed sharply. The export-oriented Asian economies suffered the most. China and India continued to grow despite contraction of their export sectors because trade represents a relatively smaller share of their economies and measures were taken to support domestic demand—for example, China's massive two-year fiscal stimulus package in combination with substantial credit expansion.

The notion that Asia will shift to a domestic demand–led growth model is more myth than reality, says Felipe, because intra-Asian trade is driven by multinational corporations and consists of intermediate goods used in the production of exports destined for external markets (e.g., the United States and European Union). China as the center of intraregional trade in parts and components may benefit other developing countries in Asia, but it also means that China does not have the capacity to be a regional growth engine. Moreover, there is the risk of depressed consumption in response to the reduction in output, employment, and wages, and a fragile economic recovery. Thus, a premature exit from any stimulus measures would be counterproductive in the long run.

The need to rebalance the world economy is based more on political than economic considerations. Average private consumption as a share of GDP is 55–60 percent in Asia—only marginally below OECD countries. China's private consumption as a share of GDP is well below 40 percent, so the focus should be on China rather than the region as a whole. Moreover, the annual growth rate of consumption in China is 15 percent, and investment, 25 percent. The problem is that the share of private consumption has declined, while investment has increased. The only way for China to industrialize and achieve an annual growth rate above 10 percent is through very high rates of capital accumulation; that is, greater investment accompanied by declining capital productivity.

The main source of China's high investment-to-output ratio is corporate profits. The share of wages in its national accounts has declined from 55 percent in the early 1990s to 36 percent today. Thus, China's spectacular economic boom is driven by massive productivity gains and higher (reinvested) profits in manufacturing. The growth in real income has translated into large annual wage-rate increases of 15 percent, but there has been a decline in the labor share of total income. It will be difficult to maintain these dynamics in the long run, since there is low employment elasticity and the economy will rebalance in favor of the service sector.

In Felipe's view, the key challenge for policymakers is to rebalance China's economy and maintain a growth model that generates employment and avoids an underconsumption crisis. This model includes more spending on social infrastructure, real wage increases for low-paid workers, and decreases in indirect taxation of essential goods. Moreover, a major shift from export-led to domestic demand–led growth will require the development of different sectors of the economy. Policies aimed at correcting supposed imbalances in trade and exchange rates are futile, and potentially harmful.

Felipe calculates a measure called "open forest," which is a weighted average of the sophistication of a country's potential export goods; that is, goods not yet exported with comparative advantage (see Working Paper nos. 609 and 611). He finds that India, China, Indonesia, and Thailand have very high open-forest values. This means that these countries have developed their industrial capabilities and the outlook is bright if they implement export-oriented policies focusing on diversification and sophistication.

*www.levyinstitute.org/pubs/wp_619.pdf*

### The Household Sector Financial Balance, Financing Gap, Financial Markets, and Economic Cycles in the US Economy: A Structural VAR Analysis

PAOLO CASADIO and ANTONIO PARADISO

Working Paper No. 632, November 2010

Paolo Casadio, Intesa Sanpaolo Bank, and Antonio Paradiso, Institute for Studies and Economic Analyses, and University of Rome La Sapienza, Italy, investigate the impact of private net saving (PNS) on the GDP cycle in the United States. They estimate a structural vector autoregression (VAR) to test whether financial markets have a role to play in the cyclical dynamic of household and nonfinancial corporate balances, and if these balances explain the economic cycle. They find that the balances react to financial markets in a way that is consistent with their theoretical expectations. They also find that economic cycles react positively to the financing gap according to their interpretation of the relationship between GDP growth and the PNS cycle, and to Hyman P. Minsky's theory of financial instability and financial cycles.

The authors focus on PNS because it has a close relationship with the economic cycle and is comprised of households and firms—the key private-agent groups in the US economy. They favor the dynamic interpretation of the relationship between GDP growth and the PNS cycle; that is, the private sector is an "active" and leading actor in the economy. Household and nonfinancial corporate balances were selected by the authors because they reflect different decisions and may show different patterns over time. Moreover, the nonfinancial corporate balance variable (corporate profits minus business investments, also known as the financing gap with the sign reversed) determines the financial imbalance and summarizes Minsky's theory. Furthermore the authors use financial variables such as long-term interest rates, equity prices, and the BAA spread (the spread between BAA-corporate bond yields and 10-year Treasury note yields) to estimate the cyclical pattern of the balances.

Casadio and Paradiso estimate an unrestricted VAR and identify the structural shocks using sample observations for the period from 1980 to mid-2010. They determine that the impulse response function shows that households and nonfinancial corporate balances react as expected—the effect of the

two financial balances on GDP growth are positive, and the financing gap is a leading component of the cycle.
*www.levyinstitute.org/pubs/wp_632.pdf*

## Program: Monetary Policy and Financial Structure

### What Should Banks Do? A Minskyan Analysis

L. RANDALL WRAY
Public Policy Brief No. 115, 2010

Senior Scholar L. Randall Wray examines the later works of Hyman P. Minsky, with a focus on Minsky's general approach to financial institutions and policy. Minsky insisted that the proper role of the financial system was to create a financial structure conducive to economic development that would improve living standards.

According to Minsky, a capitalist economy can be described as a set of interrelated balance sheets and income statements. All economic units—households, firms, financial institutions, and governments—take asset positions by issuing liabilities with margins of safety related to income, net worth, and liquidity. In terms of financial institutions, he distinguished between traditional commercial banking, investment banking, universal banking, and public holding company models. Commercial banks can "force" a surplus in order to generate gross capital income (profits plus interest), and promote capital development by financing the wage bill of workers in the investment-goods sector. An investment bank provides the external finance needed to place capital goods into the hands of the entrepreneur or market. A universal bank combines commercial and investment banking functions (both short-term lending and long-term funding), while a public holding company owns various types of financial firms that are separated by firewalls.

The layering of financial commitments on top of income-producing real assets created a new kind of capitalism, one in which ownership positions need to be continually validated. That phase of capitalism—what Minsky called "finance capitalism"—imploded in the Great Depression. The government was too small to offset the collapse of gross capital income that followed the Great Crash of 1929. After World War II, a new stage of capitalism emerged—managerial welfare-state capitalism—with a government so large that its deficit could expand sufficiently in a downturn to offset the swing of investment. In addition, we had an array of New Deal reforms that strengthened the financial system, separating investment banks from commercial banks and putting in place government guarantees such as deposit insurance.

But, as Minsky observed, stability is destabilizing: the relatively high rate of economic growth, plus the relative stability of the financial system, encouraged innovations that, over time, subverted the New Deal constraints. Financial wealth (and private debt) grew on trend, producing immense sums of money under professional management. Minsky called this stage, where we are today, the "money manager" phase of capitalism. Here, the real problem is the erosion of underwriting standards, combined with the government's endorsement of private obligations. The investment banks are like huge hedge funds, but now with bank charters giving them access to the Fed's discount window and to FDIC insurance. The simultaneous demise of commercial banking and rise of shadow banking was largely a consequence of this transition to money manager capitalism.

In Minsky's view, deregulation was secondary to market factors in transforming the financial sector. With help from the government, power was consolidated in a handful of huge firms that provided the four main financial services: commercial banking, payments services, investment banking, and mortgages. Brokers didn't have a fiduciary responsibility to act in their clients' best interests, while financial institutions bet against households, firms, and governments. By the early 2000s, banking had strayed far from the (Minskyan) notion that it should promote "capital development" of the economy.

Minsky insisted that banking reforms account for accelerated innovation in both financial intermediation (i.e., relationship banking) and the payments mechanism. He advocated government policies to support a network of small community development banks (public-private partnerships) that would provide a full range of services. Policy should also move to make the payments system a profit center, so that banks can compete with money funds. Transaction taxes could be placed on payments made through managed funds, and

banks could be offered lower, subsidized, fees for use of the Fed's clearing system. Opening the discount window to provide an elastic supply of reserve funding, to a broad spectrum of financial institutions, would ensure that banks could finance positions in as many assets as they desired, at the target funds rate. If the Fed had lent reserves without limit when the crisis hit, says Wray, it is probable that the liquidity crisis could have been resolved more quickly.
*www.levyinstitute.org/pubs/ppb_115.pdf*

### Why the IMF Meetings Failed, and the Coming Capital Controls

MICHAEL HUDSON
Policy Note 2010 / 3

The competition in global credit creation has made finance the new mode of warfare, and the standoff between the United States and other countries at recent International Monetary Fund (IMF) meetings in Washington could result in the most serious rupture of the global financial system since 1933. This outlook by Research Associate Michael Hudson stems from the Federal Reserve's "quantitative easing" approach, which creates liquidity and reserves for the US financial system and reinflates US real estate and financial markets by keeping high (insolvent) debts from defaulting. This approach is driving the dollar down and other currencies up, creating (predatory) "capital inflows" that disrupt trade patterns and create enormous profits for large financial institutions and their customers.

The Fed's way of helping the US banks enables currency speculators to reap enormous profits. The issue is how long nations will succumb to the speculative dollar glut. Many countries are seeking to create an alternative global financial system and a fairer world economy, at the risk of a chaotic transition period.

Hudson points out that the character of funding has been purely financial—extractive, not productive, since little of it has financed new capital formation. Furthermore, attempts by countries such as China to recycle trade surpluses and purchase US companies have been met with protectionist measures, leaving few options other than stabilizing currencies by purchasing US and European government bonds. The problem is that the global financial system rewards speculation and makes it difficult for central banks to maintain stability without recycling dollar inflows to the US government, which has a near monopoly in providing reserves by running budget and balance-of-payment deficits.

To prevent currencies from rising against the dollar, foreign countries can (1) recycle dollar inflows into US Treasury securities; (2) impose capital controls; or (3) avoid currencies used by financial speculators associated with economies that promote "quantitative easing." If nations take the path of capital controls similar to actions taken in Malaysia during the 1997 Asian crisis and in Brazil more recently, this would reverse the policy of open and unprotected capital markets adopted after World War II and threaten to lead to dual exchange rates—one for financial movements and another for trade. This means replacing the IMF, World Bank, and World Trade Organization with a new set of institutions with reduced representations from the United States, Britain, and the eurozone. In the meantime, the BRIC (Brazil, Russia, India, and China) countries are creating their own parallel system of direct trading based on their respective currencies.
*www.levyinstitute.org/pubs/pn_3_10.pdf*

### A New "Teachable" Moment?

MARSHALL AUERBACK
Policy Note 2010 / 4

A common refrain heard from those trying to justify the results of the recent midterm elections is that the government's fiscal stimulus to save the US economy from depression undermined growth, and that fiscal restraint is the key to growth. Research Associate Marshall Auerback maintains that this view stems from the failure to understand a fundamental reality of bookkeeping—that when the government runs a surplus (deficit), the nongovernment sector runs a deficit (surplus). If the new GOP Congress cuts government spending now, *deficits will go higher*, as growth slows, automatic stabilizers kick in, and tax revenues fall farther.

The United States has a current account deficit. If both the government and private domestic sectors implement plans to generate surpluses (i.e., reduce spending and pay down debt), there will be a shortfall in aggregate demand that will generate cuts in output and income. Forcing people to "live within their means," as desired by the new Congress, will have the opposite effect.

Auerback sees little chance that President Obama's "negotiating strategy" will be successful. And if extending the Bush tax cuts faces congressional gridlock, taxes will rise in 2011, further draining aggregate demand. Moreover, there are potential solvency issues for the United States if the debt ceiling is reached and Congress does not raise it. These issues are based on our self-imposed legal constraints, not on our sovereign government's operational constraints in terms of spending money. It also means that approximately $80 billion in spending power will be withdrawn from the economy when the temporary extension of unemployment insurance expires. This chain of events potentially creates a new financial crisis and effectively forces the US government to default on its debt. The question is whether or not President Obama (and his advisers) will be enlightened enough to embrace this "teachable moment" about US main sector balances. Recent remarks to the press about deficit reduction suggest otherwise.
*www.levyinstitute.org/pubs/pn_4_10.pdf*

## Changes in Central Bank Procedures during the Subprime Crisis and Their Repercussions on Monetary Theory

MARC LAVOIE
Working Paper No. 606, August 2010

Mainstream monetary theory has not explained adequately the response of central banks to the financial crisis. Marc Lavoie, University of Ottawa, Canada, analyzes the implications of changes in the operating procedures of the Federal Reserve since August 2007. He finds that the Fed lost control over the federal funds rate following the failure of Lehman Brothers, and that the causal mainstream link between reserves, money, and prices was broken. Most mainstream monetary theory that applies to central banking is worthless, he says, including the notion of a money multiplier and the presumed causal relationship between bank reserves held at the central bank and price inflation. Sizable excess reserves do not have a potentially large inflationary effect, he says.

In September 2007 the Fed made the first of many reductions in its target funds rate. It then adopted more permanent credit-easing operations in December by introducing the Term Action Facility, which allowed banks to take collateralized loans from the central bank for a one-to-three-month period. To keep the federal funds rate near its target rate, the Fed conducted open-market operations by engaging the repo market and selling Treasury bills to the private sector (thus keeping its balance sheet constant and satisfying its reserve requirements).

When Lehman Brothers declared bankruptcy in September 2008, the Fed acquired illiquid private financial assets, while the private sector acquired liquid short-term government securities. The size of the Fed's balance sheet rose precipitously: the rise in holdings of private assets was not compensated by a decline in holdings of government securities but rather by a rise in the Fed's liabilities. The spread between the effective and target funds rates rose to an unprecedented 62 basis points.

In order to regain control, the Fed gained the authority (three years earlier than planned) to pay interest on reserves and adopted the corridor system, whereby the target overnight rate is set midway between the primary credit rate and the rate of interest on deposits at the central bank. When the effective rate remained significantly below the target rate, the Fed adopted a floor (modified corridor) system. In this system, the central bank sets the target interest rate equal to the deposit rate. But this measure also failed to narrow the gap between the effective and target rates because some participants in the federal funds market (e.g., Fannie Mae and Freddie Mac) were not eligible to receive interest payments on their reserve balances. When the Fed subsequently set the primary credit rate at 0.5 percent and the deposit rate on all reserves at 0.25 percent, and announced that its target rate would be between 0 and 0.25 percent (since it did not fully control short-term interest rates), the spreads between the effective and the target funds rate returned to historical levels (since December 2008).

With the adoption of the floor system, the separation between reserves and interest rates is complete: the interest rate will rise along with the lending and deposit rates. Moreover, fluctuations in reserves are not a concern, since excess reserves will keep the overnight rate at the floor level and, hence, at the target overnight rate (the decoupling principle). The main advantage of a floor system is that the central bank does not need to neutralize operations or forecast the demand for reserves (i.e., there should be less volatility in overnight interest rates and no need for compulsory reserves to stabilize interest rates). A second advantage during a recession is that large excess reserves will induce banks to make more loans (paying interest on reserves does not discourage banks from lending to the nonbanking sector). Money-multiplier theory wrongly proposes that excess reserves will feed into additional loans and deposits, leading to excess money creation and inflation.

Lavoie points out that a bank with easy access to free reserves will not necessarily provide more loans than a bank that has to borrow reserves, since lending decisions depend on the creditworthiness of borrowers. When the central bank supplies excess reserves, the overnight rate drops to zero—there is no interest remuneration—leading to lower short-term interest rates that should induce both lenders and borrowers to engage in credit operations. With a floor system, the overnight interest rate will remain at its base level and nothing else will happen—it cannot be claimed that large excess reserves have a potentially large inflationary effect. The fiscal implications of these findings is that federal government deficits can be financed indifferently, either by issuing government securities or by forcing banks to hold reserves at a deposit rate that is close to the interest yield on Treasury bills.
*www.levyinstitute.org/pubs/wp_606.pdf*

### What Do Banks Do? What Should Banks Do?

L. RANDALL WRAY
Working Paper No. 612, August 2010

This working paper was used as the background information and data for Public Policy Brief no. 115 (see p. 10).
*www.levyinstitute.org/pubs/wp_612.pdf*

### The "Keynesian Moment" in Policymaking, the Perils Ahead, and a Flow-of-funds Interpretation of Fiscal Policy

ANDREA TERZI
Working Paper No. 614, August 2010

John Maynard Keynes's approach to long-run policy sought ways to let the economy permanently adjust to a higher level of activity. According to Andrea Terzi, Franklin College, Switzerland, Keynes's vision has been misrepresented by government policies that are merely "short-term fixes" aimed at reversing the business cycle during an economic crisis. He claims that government actions only marginally reflect Keynes's theoretical framework and are destined to be ineffective if the political tolerance for fiscal deficits is too low for full employment. The euro area, for example, is moving along a deflationary path that will make it a very precarious region in economic terms.

The broad consensus is that a lack of demand caused the global recession. The point, says Terzi, is that the precrisis policy regime had no strategy to deal with a sudden and major fall in aggregate demand. The response reflected a "moment of political emergency." He proceeds to contrast the short-run character of the emergency policies with the long-run properties of Keynesian policy propositions, discuss the consequences of fiscal actions within a simple flow-of-funds model, and expose a crucial flaw in the euro area's institutional structure.

Terzi summarizes Keynes's model in terms of price and wage adjustment mechanisms, the gold standard and foreign trade, curbing economic booms, full employment and financial stability, the desire for financial savings, and the relative effectiveness of monetary and fiscal policies. Allowing prices and wages to adjust downward will not restore employment and growth, addressing a lack of domestic demand with an export-oriented policy is a harmful strategy that makes a country dependent on foreign demand, and raising interest rates is not a solution to curb "overinvestment." An effective way to end a financial crisis and repay debts is to increase employment, since there is a strong link between demand, employment, and the financial health of the private sector.

Keynes's position respecting private-sector spending is frequently misrepresented, says Terzi. He notes that Keynes endorsed fiscal policy as a key function, and that his economic theory (with some qualifications) does not contradict the idea that savings are associated with growth. According to Keynes, however, there is a fundamental difference between monetary and fiscal policy: the former modifies the forward price of money (i.e., the interest rate), while the latter modifies disposable income and net worth of the private sector.

New, "neoclassical synthesis" interpretations contrast with Keynes's model in terms of fiscal-deficit financing. In the former, public deficits provide a short-run stimulus to demand. In Keynes's model, fiscal expansion is limited by production possibilities associated with the available human and material resources (not in the financial constraints of monetary flows). Concerns about the origin of money based on a "lack of money" rather than on real resources ignore the legacies of Adam Smith and Keynes, and lack an understanding of the difference between real and nominal values. The public sector has the power to impose or remove the monetary constraint to growth by focusing on the financial savings of the private sector rather than on the notion of savings.

Using a simple flow-of-funds model, Terzi demonstrates that only the public sector can bring about a net increase in private-sector financial wealth without a loss of real national wealth. Government fiscal deficits are unconstrained when a sovereign state currency is used, so there is no obstacle to full employment. Terzi's investigation of the causes and consequences of the creation of public sector liabilities illustrates Keynes's (and Abba Lerner's) policy approach to removing all monetary constraints to demand, employment, and growth.

Terzi assesses the monetary arrangements in the euro area, where institutional constraints to the supply of central bank credit have reintroduced national solvency risks. He notes that the limit on deficits has no theoretical foundation and that it undermines the ability to use fiscal policies. In addition, euro area governments have lost their monetary sovereignty without having a corresponding federal alternative. As a result, these (national) governments are forced to apply procyclical policies when fiscal deficits increase during a slowdown. This response leads either to an export-driven growth model or to the acceptance of deflation.

In sum, Terzi provides evidence that the prevailing policy regime is at variance with Keynes's policy guidelines; private financial resources are a consequence, not a condition, of government deficits; and the euro area exemplifies a self-constrained approach to fiscal policy where the aim to provide a virtuous currency has backfired. Governments have a real option to act for or against full employment, he says.

*www.levyinstitute.org/pubs/wp_614.pdf*

## Innocent Frauds Meet Goodhart's Law in Monetary Policy

DIRK BEZEMER and GEOFFREY GARDINER

Working Paper No. 622, September 2010

According to John Kenneth Galbraith, "innocent fraud" is how economic and political systems cultivate their own versions of the truth (and no one is at fault). This is particularly true as it applies to monetary policy; for example, the notion that interest rate hikes will fight inflation, the need for taxation to fund government expenditures, or the assumed debt burden of current government deficits to our children.

Dirk Bezemer and Geoffrey Gardiner, University of Groningen, Netherlands, suggest that fraud persists because of a misrepresentation of the financial implementation of public policies. Lost in the public discourse is the accounting side of financial and monetary policy. The study of monetary policy should analyze the administration of financial accounting processes at the macroeconomic level and differentiate between different types of assets and liabilities. Otherwise, there is a refusal to face the facts, leading to confused policy interventions.

The authors examine two recent innocent-fraud episodes in British monetary policy: the Royal Bank of Scotland (RBS) "bailout" and the UK government's decision to conduct "quantitative easing." In terms of these episodes, there were three innocent frauds: (1) money is a thing, not a relationship; (2) the government creates liquidity using taxpayers' money; and (3) what is possible for one bank is possible for all banks.

The UK government portrayed the purchase of RBS shares as a bailout by taxpayers, but no taxpayer money was used. The governor of the Bank of England debited the account of the government and credited the RBS account, and RBS issued billion of shares to the government (at a knockdown price). Thus, the government was debited for the same amount as RBS was credited, leading to the belief that bank liquidity was created by government borrowing from the banks. The deal should have given RBS more liquidity but it did not, because the Article 123 amendment to the Lisbon Treaty forbade the Bank of England from lending money to the government. When the government sold new government stocks two months before the deal, it effectively removed all of the new liquidity from the banks before it had been created.

The Bank of England ignored the law during its quantitative-easing experiment by buying existing government stocks, thereby increasing bank liquidity to eight times the level at the beginning of the credit crisis (August 2007). The government expected banks to lend this additional money because it did not understand that banks lend their own money, not that of the central bank. Thus, the Bank of England succumbed to the innocent fraud that money is a thing, not a relationship.

Quantitative easing stems from the monetarist recipe ("printing money") promoted by Milton Friedman—increasing banks' reserves with the central bank and relying on the banks to lend to the economy. This idea is based on the theory of fractional-reserve banking, where lending is a multiple of bank reserves (of liquidity). The principle problem is that fractional-reserve banking is an unsatisfactory model of what banks do. Banks lend against their total asset base, so there is no reason for a stable reserve-to-loan ratio nor a causal relation between central bank reserves and bank lending.

A belief enshrined in the Lisbon Treaty is that central banks should not lend to their own governments. This belief limits the scope for monetary policy by restricting bank liquidity—an effect rationalized by the innocent fraud that government borrowing from a central bank is fiscally irresponsible. The fraud relies on a failure to understand that government debt is both a liability and an asset.

Article 123 has the effect of cutting off the banks from their natural supply of liquidity (gilts sold for Bank of England reserves). The consequence is that banks cannot increase their holdings of new government bonds without reducing their aggregate liquidity. In fact, the Article ensures that the only way banks can acquire liquidity is by borrowing from the central bank and then lending the money back to the central bank!

Confusion about the role of central bank reserves in determining bank lending has plagued the use of quantitative easing as a concept and as a policy tool. The term was originally meant to denote an increase in bank lending in the economy, not an increase in banks' deposits with the central bank. The Bank of England's quantitative easing (cash injection) program from March 2009 to February 2010 aimed to boost the growth of money, and household and business spending, by including the purchase of nonbank private-sector assets. However, quantitative easing increases investors', not spenders', deposits and causes banks to restrict deposit creation by other customers and make it more expensive to borrow. The net effect can be a shrinking deposit base.

Upon reviewing the operational details of quantitative easing by the Bank of England, the authors conclude that the Bank was successful in increasing reserves at a rate never observed before and to levels unique in its history (unlike the RBS episode). The response in bank lending, however, is unclear. The authors observe "Goodhart's Law" in action—that any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes. For example, loans and reserves tend to develop proportionally—that is, until policymakers purposely boost reserves. Thereafter, reserves do not cause loans in a systematic fashion. Thus, there is no evidence that quantitative easing works. Moreover, there is no logical case for quantitative easing to boost spending via the equity markets, as it may decrease rather than increase bank lending and IPO activity (public lending to firms). The data do not support the intended effects of quantitative easing, but no one queried either the theory or its application in the UK.
*www.levyinstitute.org/pubs/wp_622.pdf*

### The Meltdown of the Global Economy: A Keynes-Minsky Episode?

SUNANDA SEN
Working Paper No. 623, September 2010

We have witnessed the limits of financialization as a sustainable path of global economic sustenance, observes Research Associate Sunanda Sen. There is a need to re-create the base for economic expansion by replacing speculation with real activity involving physical assets rather than financial assets.

In this paper, Sen focuses on some theoretical concerns relating to deregulated financial institutions and financial engineering. According to John Maynard Keynes, continuous purchases of an asset (new investment) require that the asset's "own rate of interest" (marginal efficiency of capital) exceed that of other assets. At some point, the own rate of interest on money equals that of other assets, as new investment causes the own rate of interest to fall due to a drop in yield (both actual and expected). Thus, the state of expectations shapes the level of confidence relating to yield and the movement in asset prices, along with the need for liquidity. The Keynesian theory of asset demand (investment) is linked to liquidity preference theory—theories subject to notions of uncertainty and the state of expectations in the asset market.

Hyman P. Minsky reformulated Keynes's analysis in terms of sourcing external finance by debt-financed credit, thus adding more uncertainty-related effects (e.g., borrower and lender risks associated with assets). In the process of borrowing funds and mitigating risks, there are "margins of safety" that are influenced by subjective assessments of uncertainty and expectations. The purchase of assets continues as long as the demand price exceeds the supply price. In his characterization of deregulated financial markets and universal banking, Minsky includes nonbank credit as well as the "orginate and distribute" model (repackaging assets for sale and shifting risk to counterparties, leading to higher profits). There is a symbiotic relationship between the globalization of financial structures and the securitization of financial instruments, and the change in the character of money diminishes the capacity of central banks to protect credit and financial stability.

Subsequent innovations in the deregulated financial markets (financial engineering) also contributed to the global crisis. Derivative instruments were created in a bid to protect asset values in uncertain markets; it was easier to trade financial assets; and there was more borrowing, leveraging, hedging, speculation, and Ponzi finance. Transactions were no longer constrained by the availability of bank credit or regulations. And most financial transactions in the secondary markets were no longer backed by physical assets. Thus, finance became increasingly removed from the real economy.

Given the state of financial engineering in a deregulated financial sector, it can be assumed that liquidity demand always adjusts to its supply, and that asset demand in the real sector always responds to liquidity demand. In the financial sector, however, uncertainty has a significant effect on the rate of return of financial assets, which, in turn, influences the liquidity demand for financial assets. When the total value of assets in the real and financial sectors turns negative, the economy collapses. When both the real and financial assets fail to perform, there is an overall catastrophe.

During the 1980s, the financial sector of advanced countries maintained a positive return even though the real sector stagnated. More recently, however, the global financial boom could not last in the absence of investment contributing to real asset formation. Sen denotes a need to reorient the pattern of investment incentives and to control speculation directly, including a move away from the high risk–high return profits in speculation.

*www.levyinstitute.org/pubs/wp_623.pdf*

## A Post Keynesian Perspective on the Rise of Central Bank Independence: A Dubious Success Story in Monetary Economics

JÖRG BIBOW

Working Paper No. 625, October 2010

Central bank independence (CBI) pertains to the structure of monetary policy and the degree of freedom from political interference enjoyed by the central bank. Research Associate Jörg Bibow finds a lack of empirical evidence to support the New Classical economists' perceived success of CBI. However, he does not completely reject CBI, in spite of Post Keynesian objections to the concept of money neutrality and the notion that CBI may conflict with fundamental democratic values. According to John Maynard Keynes's CBI model, the issue is not to maximize CBI but to find a balance conducive to efficient policy and compatible with democratic values.

Bibow reviews the rise of CBI worldwide that coincided with the prioritization of price stability in monetary policy and "inflation targeting" among central banks. He does not agree that CBI has guaranteed low inflation. Rather, CBI arose in an era of subdued global inflationary pressures and declining inflation rates, irrespective of strategies associated with neoliberalism and the "Washington Consensus." Moreover, Germany's influence in Europe with the advent of the Economic and Monetary Union and the Maastricht Treaty stemmed from peculiar historical circumstances: two supposed hyperinflation episodes (largely a myth nourished by central bankers) and the separation of the central bank from the German political authorities by the Allied occupation forces following World War II. In spite of public confrontations, the Bundesbank law (1957) remains unchanged, while the Bundesbank continues to nurture public opinion (claiming to be the ultimate guardian of stability) and secure industrial interests by promoting export-led growth (*caused* by price stability).

Bibow reviews the New Classical theoretical foundations supporting CBI. He finds that the notion of rules-versus-discretion attained a new meaning under New Classical thought, when CBI was seen as representing "rule" rather than "discretion" and the labor market players were expected to discern that the optimal zero-inflation policy would be time inconsistent (i.e., no longer optimal after the settlement of wage contracts). In this context, inflation is recast as a Lucas-type natural world of money neutrality, rational expectations, and policy ineffectiveness.

The arguments for CBI as a solution to the alleged time-inconsistency problem are as shallow as the New Classical time-inconsistency fiction from which they are derived, says Bibow. From a Keynesian perspective, the postulated behavior of policymakers reflects outright irrationality. In conditions of less than full employment, (temporary) expansionary monetary policy might permanently raise employment toward full employment. The aim of discretionary policy is to stabilize an unstable economy, not to resort to deliberate "surprise" inflation in order to push employment beyond its equilibrium level (followed by costly disinflation).

Post Keynesian criticisms of CBI concern policy coordination, democratic control, and accountability, as well as an overarching issue: the assumed neutrality of monetary policy in mainstream thinking. According to Bibow, Keynes's CBI model addresses these concerns. Keynes envisaged a specific form and degree of CBI based on checks and balances intended to constrain the technicians' scope for discretion, while establishing ultimate (indirect) democratic control over monetary policy. Keynes wanted the central bank to cooperate closely and equally with the treasury, while reserving ultimate responsibility over monetary policy for the government.

Keynes favored instrument, not goal, independence, where the central bank is responsible for the *production* of price stability and the government is responsible for the central bank's goals and accountable to both parliament and the electorate. In a managed currency system, price stability can only be anchored by the political will of those charged with economic policy. According to Keynes, his CBI model was not problematic regarding the non-neutrality of monetary policy because the neutrality postulate concerns policy conduct, while CBI concerns the structure of monetary policy. The government decides on the policy goals that the central bank is expected to produce and appoints the central bankers.

In the case of Germany, the Bundesbank is responsible for price stability (not just the production of price stability), and it operates as a separate policymaker with its *own* price stability goal. There is a complete lack of democratic responsibility, so the central bank is deemed to be directly accountable to the public. Thus, the German CBI model conflicts with basic democratic principles and may be operationally inefficient, leading to persistently high unemployment and slow growth.
*www.levyinstitute.org/pubs/wp_625.pdf*

## Managing Finance in Emerging Economies: The Case of India

SUNANDA SEN
Working Paper No. 630, October 2010

According to pundits such as Nobel Laureate Joseph Stiglitz, India has managed its monetary policy successfully and withstood some of the negative effects of the global economic crisis. According to Research Associate Sunanda Sen, such notions underestimate the systemic risks and social costs embedded in India's liberalized financial sector. Monetary management has not kept up with the need to control inflows of short-term capital, sterilize capital inflows, prevent appreciation in the rupee's real exchange rate, limit cuts in public expenditure, fix interest rates at an acceptable level, and control the financialization of the commodity markets.

Sen outlines the pattern of India's integration with the global financial market since 1991 and the hurdles faced in managing its financial sector. She notes the competing demands between maintaining price stability, achieving competitive real exchange rates, and ensuring free capital inflows (i.e., the "impossible trinity"). Two often overlooked concerns are the fiscal implications of monetary management that inflict social costs, and the spillover of futures trading to the commodity markets when deregulated markets are financialized. Successive rounds of liberalization have changed the pattern and volatility of the financial sector; for example, greater inflows of foreign institutional investments, more derivatives trading, and a rise in stock price/earnings ratios.

Short-term capital flows create problems for the monetary authorities in achieving the twin goals of managing a competitive real exchange rate and maintaining autonomy in order to meet the domestic economic goals. Policies to deregulate the financial sector initiated large inflows of foreign institutional investment, which traded in India's secondary equity markets. Liberalizing the financial sector created a "trap," as domestic monetary policy became captive to external economic developments that affected official goals related to domestic output, employment, and the distribution of credit.

Measures to arrest the volatility in interest rates, exchange rates, and stock prices, and to ease liquidity following the 2008 crisis, did not meet the desires of policymakers. And when attempts to manage speculative short-term capital inflows were unable to arrest the spillover to the commodity market, there was gross inflation in food prices. Moreover, there was a rising share of interest-rate charges and debt-servicing costs as a proportion of nonplan expenditures, but food subsidies remained at a relatively low share of expenditures. The benefits of financial deregulation have been confined to market speculators, while the costs are borne by people who are affected by commodity price speculation and government cuts in social-sector spending.

*www.levyinstitute.org/pubs/wp_630.pdf*

## How Brazil Can Defend Against Financialization and Keep Its Economic Surplus for Itself

MICHAEL HUDSON

Working Paper No. 634, November 2010

In a presentation to the Brazilian Economic and Social Development Council in September 2010, Research Associate Michael Hudson urges the BRIC (Brazil, Russia, India, and China) countries to isolate themselves from global debt creation. According to Hudson, privatizing the public domain and financializing the economy is akin to military defeat by neoliberal finance-backed politicians in the North. Moreover, no nation needs credit from abroad for domestic currency spending at home, since most credit is used for extracting rent rather than for productive capital formation.

Financial maneuvering and debt leverage aim to control land, infrastructure, the economic surplus, national savings, commercial banking, and central bank policy. When surpluses are transferred abroad, countries lose sovereignty over their financial, economic, and tax policies. And such pro-rentier policy is supported by the Washington Consensus. The key to a country's international competitiveness, however, is to raise wages and living standards, and to tax potential rentier charges, but there is no discussion of transferring the tax burden from labor and industry, and onto economic rent and debt leveraging. The neoliberal ideology of shifting economic planning from the government to bankers and money managers is replacing the classical law of nations, which is based on the idea of sovereignty over debt, financial, tariff, and tax policies. Greater debt leveraging by banks is leading to a crisis in the character of nationhood and economic sovereignty.

US and European bank lending has fueled a global inflation of real estate, stock, and bond prices. The effect of foreign credit, when converted into domestic currency, siphons off interest and economic rent as bank loans bid asset prices up. The unchecked explosion of global credit and debt is largely a result of the credit expansion unleashed after gold convertibility ended in 1971. The Treasury-bill standard's (self-destructive) legacy is that the US economy has been able to use the dollar standard's free ride (and low interest rates) to burden itself with an unprecedented debt overhead.

Hudson believes that the World Bank and the International Monetary Fund are committed to a destructive economic philosophy under the banners of "free trade" and "open capital markets." Foreign-currency loans aim to increase exports, not develop local economies, while "interdependence" implies acquiescence in globalization and dependency that has bolstered US financial and military hegemony. Furthermore, the demand that countries "balance their budgets" means selling off the public domain and slashing public spending as preconditions for raising labor productivity.

What is ironic, says Hudson, is that the tax philosophy favoring debt leveraging rather than equity investment is destroying the creditor economies as well as the peripheral financialized economies. The move by BRIC countries to create an alternative financial system is a reaction against the neorentier drive to undermine classical economic reform.

Hudson recommends (1) that governments avoid using revenues to pay debt service, bail-out banks, or subsidize the FIRE (finance, insurance, and real estate) sector; (2) new devel-

opment indicators to replace the GDP-accounting format with one that reflects a nation's ability to pay foreign debts; (3) pay-as-you-go plans paid out of current taxation to avoid financial liabilities; and (4) global governance rules to write down mortgages and other debts in order to avoid debt deflation, shrinking employment, and declining national output.
*www.levyinstitute.org/pubs/wp_634.pdf*

## Program: The Distribution of Income and Wealth

### Measuring Poverty Using Both Income and Wealth: An Empirical Comparison of Multidimensional Approaches Using Data for the US and Spain

FRANCISCO AZPITARTE

Working Paper No. 620, September 2010

Most official statistics on poverty are based solely on household income. In recent years, however, there has been greater attention to the contribution of wealth to household well-being. Francisco Azpitarte, London School of Economics and Political Science, examines the implications of multidimensional approaches to measuring poverty based on income and wealth for the United States and Spain. He finds that the incidence of poverty varies depending on the definition of poverty and that poverty is greater in the United States than in Spain, regardless of the poverty measure or income-poverty line. Nevertheless, poverty profiles in the two countries are similar.

Azpitarte uses two comparable wealth surveys: the 2001 US Survey of Consumer Finances and the 2002 Spanish Survey of Household Finances. He constructs measures of wealth based on net worth, which reflects a household's store of value and includes the value of owner-occupied housing and nonhousing wealth (which is equivalent to net worth minus the net value of the principal residence). Income poverty is measured using the relative approach; that is, an income-poverty line set equal to a percentage of median income (in this case, 40, 50, and 60 percent). The union criterion identifies poor households based on an insufficiency of either income or wealth. The intersection criterion identifies poor households based on an insufficiency of both income and wealth. The annuity-based indices represent an intermediate approach.

The author finds that the proportion of poor households identified by the union criterion is larger than that by the intersection criterion, while the annuity measure lies between the two. The most striking difference in the poverty measure between the United States and Spain is based on the intersection criterion. Azpitarte uses a logit model to assess the impact of socioeconomic characteristics on the probability of poverty, and finds very similar profiles between the two countries. He also finds that young households headed by individuals under 35 are the most vulnerable age group, particularly in the United States. According to every age group, single and single-parent households are most likely to live in poverty.

Azpitarte analyzes the degree of overlap between the multidimensional poverty indices. The proportion of poor households is larger in the United States (37 percent) than in Spain (less than 25 percent). Excluding the housing component of wealth, the proportion of households that are not poor by any definition of poverty is the same in both countries (54 percent). The proportion of households that are identified as poor based on all four indices is 30 percent in the United States and 10 percent in Spain.

These results highlight a very low level of overlap between the different poverty measures. In the net worth case for US households, for example, the degree of overlap between the union and intersection criteria is only 30 percent. The level of overlap in the United States is significantly greater than in Spain for all poverty-index combinations. The relatively greater level of misclassification in Spain may be due to the lower correlation between income and wealth. Given the definition of poverty according to the union, intersection, and annuity criteria, the higher concentration of population in US regions characterized by low income and wealth accounts for more overlap and less misclassification in the United States.
*www.levyinstitute.org/pubs/wp_620.pdf*

## Levy Institute Measure of Economic Well-Being

### Quality of Match for Statistical Matches Used in the 1999 and 2005 LIMEW Estimates for Canada

THOMAS MASTERSON

Working Paper No. 615, September 2010

A Levy Institute project undertaken with support from the Sloan Foundation analyzes economic well-being at the international level. In association with Working Paper no. 618, Research Scholar Thomas Masterson describes the construction of synthetic datasets used in estimating the Levy Institute Measure of Economic Well-Being (LIMEW) for Canada in 1999 and 2005. The estimation process requires information about demographics, income, transfers, taxes, wealth, and time use.

Since no single dataset has all of the required information, Masterson uses various Statistics Canada surveys. He compares and aligns the distribution of households between datasets in order to minimize the difference between the source and match files, and is able to accurately preserve, at a detailed level, the distributions of household production and wealth in the matching process. The constructed database represents the equivalent of almost the total population of Canada.

Statistics Canada's Survey of Labour and Income Dynamics (SLID) is used as the base dataset for regional household information on demographics, income, transfers, and taxes. Wealth data are derived from the Survey of Financial Security, while time-use data come from the General Social Survey (GSS). The problem of missing values in the data is dealt with by using multiple imputations, with hot-decking or chained equations.

In order to perform a successful match, the datasets must be well aligned according to strata variables. For the wealth match, these variables include homeownership, age and education of household head, family type, and household income. Based on observations of these variables, the worst misallocation of wealth variables is in terms of family type. However, an examination of match quality within population subgroups shows generally good results. Although the quality of match has its limitations in terms of homeownership, the overall and subgroup distributions are transferred with remarkable accuracy.

The source datasets for the time-use match for the LIMEW estimates are the SLID and GSS. The strata variables are sex, parental status, employment status, marital status, and spouse's employment status. While households are the base unit for the wealth match, individuals are the base unit for the time-use match. In this case, more than 90 percent of the records were matched in the first round, ensuring a high-quality match within population subgroups. In sum, the reproduction of weekly hours of household production in the matched file is very good, and any remaining small differences will not greatly impact the final LIMEW estimates for Canada.

*www.levyinstitute.org/pubs/wp_615.pdf*

### Quality of Match for Statistical Matches Used in the 1992 and 2007 LIMEW Estimates for the United States

THOMAS MASTERSON

Working Paper No. 618, September 2010

A Levy Institute project undertaken with support from the Sloan Foundation analyzes economic well-being at the international level. In association with Working Paper No. 615, Research Scholar Thomas Masterson describes the construction of synthetic datasets used in estimating the Levy Institute Measure of Economic Well-Being (LIMEW) for the United States in 1992 and 2007. The estimation process requires information about demographics, income, transfers, taxes, wealth, and time use. Since no single dataset has all of the required information, Masterson combines various surveys. He compares and aligns the distribution of households between datasets in order to minimize the difference between the source and match files, and is able to accurately preserve, at a detailed level, the distribution of household production and wealth in the matching process.

The Bureau of Labor Statistics' Annual Demographic Supplement (ADS) is used as the base dataset for regional household information on demographics, income, transfers, and taxes. Wealth data are derived from the Federal Reserve's Survey of Consumer Finances (SCF), while time-use data come from the Americans' Use of Time Project (AUTP) and the American Time Use Survey (ATUS).

In order to perform a successful match, the datasets must be well aligned according to strata variables. For the wealth match, strata variables include homeownership, age, race, family type, and household income. Masterson notes that the top of the wealth distribution is oversampled in the SCF survey. He also notes differences between surveys in terms of the distribution of family types, race, and income. Nevertheless, an examination of match quality within population subgroups shows generally good results. Although the quality of match has its limitations (especially in terms of race), the overall and subgroup distributions are transferred with remarkable accuracy.

The strata variables for the time-use match are sex, parental status, employment status, and marital status. While households are the base unit for the wealth match, individuals are the base unit for the time-use match. For the 1992 LIMEW estimates, the ADS and AUTP surveys were eight years apart, so there were differences in terms of the distribution of individuals by sex, employment, income, and labor force participation rates. For the 2007 LIMEW estimates, the ADS (now known as the Annual Social and Economic Supplement) and ATUS survey data were only a year apart, so the only concern was the difference in parental status.

In spite of differences between datasets, the quality of match within population subgroups shows generally good results, and the distribution of household production is well preserved in the matching process. The limitations in terms of the marital and employment status categories are small, so they will not affect the derivation of the LIMEW estimates.
*www.levyinstitute.org/pubs/wp_618.pdf*

## Program: Gender Equality and the Economy

### Gendered Aspects of Globalization

SUNANDA SEN

Working Paper No. 621, September 2010

Research Associate Sunanda Sen examines gender-related issues in the context of globalization, official statistics, the workplace, and intrahousehold relations. She finds that sweeping economic reforms have actually contributed to the gender gap and that prevailing stereotypes have to be confronted before the gender imbalance pervading official policies and social norms can be redressed. Women's contribution in terms of unpaid work in the (care) economy continues to be ignored, while gender gaps in employment, wages, and working conditions produce a vicious circle of gender discrimination. There is no evidence, says Sen, that trade liberalization and foreign direct investment have reduced the gap.

The neoliberal view to gender status in society presumes that individuals with free, rational choices receive what they contribute in material terms to an exchange economy. This view ignores or justifies gender disparities such as patriarchal households and discrimination against women in the labor market, along with the uneven sharing of household chores. Mainstream theory continues to overlook the contribution of women in terms of unpaid work, an oversight that applies to the national accounts from which official policies are set.

By identifying "work" as formal jobs outside the home, the data exclude women's contributions both informally and domestically. Trade and foreign direct investment create labor-intensive, low-wage, low-skill employment. Deregulation under globalization introduces labor market "flexibility" that leads to new forms of female-labor expropriation and weakens women's bargaining power.

The gender shift in labor market processes in developing countries can be traced to three distinct channels: (1) globalization through cost-cutting competitiveness, subcontracting, and home-based manufacturing, which is at the bottom of a complex production chain; (2) downsizing of public sector employment and more (insecure) private-sector employment; and (3) an "additional work effect" at the household level when women must take underpaid jobs. Global forces of power and local forces of oppression interact and repress female workers. Thus, it is necessary to ensure that paid work does not represent a distress strategy necessary to sustain family livelihoods.

We need to recognize that the interrelation between the sexes—which includes hierarchy, dependence, and the power of patriarchy—has been outside the purview of economics, official statistics, and subsequent policies, says Sen. We also need to pay attention to the effects of exports and foreign direct investment on job creation; support female education; reject prevailing attitudes toward the contribution of women in the workplace and household; and recognize the need for social accountability in terms of the contribution of all women in society.

*www.levyinstitute.org/pubs/wp_621.pdf*

## Program: Employment Policy and Labor Markets

### Extrinsic Rewards and Intrinsic Motives: Standard and Behavioral Approaches to Agency and Labor Markets

JAMES B. REBITZER and LOWELL J. TAYLOR

Working Paper No. 607, August 2010

The principal-agent model supports the idea that extrinsic rewards can be an efficient means of motivating agents. The strategies firms adopt to resolve agency problems (such as conditioning pay on observed productivity) can have profound effects on labor markets by impacting gender and racial inequality, labor market segmentation, and unemployment.

Research Associate James B. Rebitzer and Lowell J. Taylor, Carnegie Mellon University, analyze the principal-agent model from a behavioral perspective. Conventional models assume that an agent has utility that is increasing in earnings and decreasing in the provision of effort. Behavioral models employ the same structure as conventional models but modify the agent's utility function to include additional psychological factors. To complicate matters, agents typically work as part of larger groups within organizations and society. This has implications for the design of reward structures, while pay structures often perform "double duty" (by resolving both a motivation problem and another problem such as the design of compensation and employment practices).

The authors present a standard principal-agent model and consider the complications that arise when the agent/principal relationship is placed within the context of a firm or labor market. They subsequently introduce the problem of extrinsic rewards (double-duty incentives in terms of CEO compensation), personnel problems in a firm, and unemployment and labor market segmentation, and discuss three applications: wages as a signal of firm fitness, rat races (screening out low-effort workers relative to high-effort workers), and multitasking. In each case, the presence of double-duty incentives greatly alters market outcomes and employment relationships. When the authors introduced behavioral features to their agency model, they focused on four issues: inequality aversion, the desire to reciprocate, behavioral norms, and identity/self-image. They then considered behavioral issues in the context of double-duty incentives. The most interesting question was whether extrinsic rewards might "crowd out" valuable intrinsic motivations.

At each stage of the analysis, Rebitzer and Taylor represent purposive behavior by analyzing equilibrium behaviors that emerge when individual agents maximize a utility function subject to participation constraints and the constraints imposed by incentive and monitoring systems. They also consider the ways in which equilibrium outcomes are shaped by market competition and the selection of agents in employment relationships (a deliberately conservative approach). They find that the introduction of behavioral features into agency models leads to novel and important results: inequity aversion among agents leads to lower-powered incentives than would otherwise be the case; effort norms can support high effort levels; professional norms can protect consumers from exploitation, and this effort can be reinforced by properly designed incentives; identity matters when resolving agency problems within employment relationships, and it can help explain empirical anomalies in labor markets; and high-powered extrinsic incentives can corrode employee motivation.

The application of behavioral economics to agency in employment relationships is a relatively new area of research. The authors outline four promising lines of inquiry: (1) the behavioral foundations of conflicts of interest, given the pivotal importance of professional norms for well-functioning markets in health care and financial services; (2) the accumulation of sociological and psychological data about identity and the pursuit of a more structured modeling approach;

(3) understanding the relationship between public policy and income and effort norms; and (4) evaluating the notion that extrinsic rewards can undermine intrinsic motives (e.g., high-powered financial incentives in health care, corporate governance, and education could undermine employee motives to do the right thing).
*www.levyinstitute.org/pubs/wp_607.pdf*

## Assessing the Returns to Education in Georgia

TAMAR KHITARISHVILI

Working Paper No. 608, August 2010

The highly educated workforce of former Soviet Union countries has not guaranteed a successful transition from a socialist to a market-based economy. Research Associate Tamar Khitarishvili considers Georgia during the country's 2000–04 economic expansion. She finds that education has contributed little to workplace earnings and that returns to education are very low compared to those in other transition countries. In addition, there is little evidence of a rising trend in returns despite economic expansion. Rather, education provides a higher probability of finding a job as opposed to improving wages (an issue that has been overlooked in the transition literature). The Georgian economy has expanded in state-financed industries such as public administration and education that employ a highly educated workforce but pay relatively low wages.

The author notes that workers with a post-Soviet education are less productive than those who were educated and trained during the Soviet era, the Georgian economy in 2008 had not recovered to pre-1991 levels, and state financing of education remains well below countries at a similar level of development. Educational quality has suffered, and there has been widespread corruption. In response to the establishment of private educational institutions in 1991, there has been a transition away from the Soviet emphasis on industrial skills to service- and management-oriented occupations befitting a market-based economy. In addition, the total number of students enrolled in private and public institutions has fallen dramatically since 2004.

Using the Georgian Household Budget Survey, Khitarishvili focuses on hired workers, which constitute a small portion of overall employment (20 percent), in order to place the results of the analysis in the context of the transition literature. Since the labor-market experience of self-employed individuals differs from that of hired workers, a focus on the latter enables the author to reduce any bias due to things such as income underreporting. The different characteristics between the working-age group and the hired-worker subsample suggest a need to account for sample-selection bias.

In her comparison of Georgia to other countries, Khitarishvili uses the ordinary least squares (OLS) approach in combination with an instrumental variable (IV) approach to estimate a Mincerian earnings equation. The basic specification of the Mincerian earnings function indicates that an additional year of education raised earnings by 3.12 percent—a very low value relative to other transition countries. Furthermore, the returns to all levels of educational attainment have fallen since 1996–97. The likely culprit is the decline in the quality of education at both the secondary and tertiary levels. Moreover, the marginal returns to tertiary education appear to be lower than the returns to secondary education. There was a sizable premium to living in urban areas and significant gender differences, particularly in terms of earnings.

Higher education increases the proportion of working-age individuals who are employed, hence raising the proportion of individuals earning a positive wage; that is, the unconditional marginal effect of one additional year of education raises the mean earnings of employed individuals. Compared to Brazil and Spain, however, education appears to have little direct impact on earnings in Georgia. And once an individual is employed, the impact of experience is negligible.

The results of various analyses such as OLS and IV do not show rising rates of return during the 2000–04 period. The author explores the shift in educational supply and demand in order to address the causes of stagnation. Although the proportion of the population with a Soviet-era education is diminishing, substitution by the next generation has not been successful.
*www.levyinstitute.org/pubs/wp_608.pdf*

## Investing in Care: A Strategy for Effective and Equitable Job Creation

RANIA ANTONOPOULOS, KIJONG KIM, THOMAS MASTERSON, and AJIT ZACHARIAS
Working Paper No. 610, August 2010

This working paper was used as the background information and data to produce Public Policy Brief no. 108. A write-up of the brief appears on p. 18 of the Spring 2010 *Summary* (Vol. 19, No. 2).
*www.levyinstitute.org/pubs/wp_610.pdf*

## A Reassessment of the Use of Unit Labor Costs as a Tool for Competitiveness and Policy Analyses in India

JESUS FELIPE and UTSAV KUMAR
Working Paper No. 624, September 2010

Unit labor costs (the cost of labor per unit of output) are used to ascertain the level of competitiveness; the policy implication is that higher unit labor costs harm the economy. Jesus Felipe and Utsav Kumar, Asian Development Bank, Manila, Philippines, reinterpret unit labor costs as the product of the labor share in output times a price adjustment that embodies the functional distribution of income between labor and capital. Using data from India's manufacturing sector, they find that the upward trend in unit labor costs is exclusively the result of an increase in the price deflator. This means that labor costs have trended downward and real wages have increased minimally, while the profit rate and unit capital costs have increased substantially. Any real loss in the competitiveness of India's manufacturing sector is related to capital and the real profit rate rather than to labor costs.

The argument that competition from lower foreign wages can damage domestic industries is not completely correct, say Felipe and Kumar. What matters is the wage rate relative to labor productivity; that is, the unit labor cost. In order to conduct a meaningful comparison between countries, costs should be expressed in common currency units and output should be adjusted for differences in relative prices. (This does not happen when converting output into dollars using nominal exchange rates.) International comparisons of productivity are inhibited by the lack of a conversion factor. Conversion factors suggested in the literature include unit value ratios (measured in local currency) and purchasing power parities (the local currency price of a basket of goods).

There are three ways that a country can lower its unit labor cost and improve its competitiveness: by (1) keeping nominal wage rates as low as possible, (2) increasing labor productivity, and (3) using an undervalued exchange rate, which is particularly true for developing countries.

The authors find that the share of labor in gross value added in India fell by half between 1980 and 2007, while the value-added deflator quadrupled and more than offset the decline in the share of labor. Capital has replaced labor as the major portion of total value added. Unit capital costs have increased ninefold due to an increase in both the share of capital in value added and the price index. This result differs from that observed when using the standard analysis.

The capital share in value added (measured in real terms) is also increasing over time. The real profit rate has increased, whereas capital productivity has fallen. The significant increase in the profit rate contrasts with the meager increase in the real wage rate. Compared to the United States, India's (relative) unit labor cost was 0.73 in 1980, 0.48 in 1990, and 0.30 in 2000. The relative unit labor cost remained constant after 2000 despite a declining labor share because the degree of undervaluation of the rupee continued to fall.

The results of Felipe and Kumar's analysis do not support policy recommendations that advocate wage moderation based on the evolution of unit labor costs. Rather, unit capital costs have risen, and any loss in competitiveness is due to an increase in the real profit rate (i.e., 25 percent in 1980 to almost 45 percent in 2007). Based on the experience of other countries, the results imply that unit capital costs will continue to increase as a result of further declines in capital productivity. The only way to contain this increase is to lower profit rates—an action that negatively affects the incentive to invest, which determines labor productivity and the standard of living. It is crucial, therefore, for policy to strike the right balance between improving labor productivity and containing unit capital costs through lower profit rates.
*www.levyinstitute.org/pubs/wp_624.pdf*

## Program: Immigration, Ethnicity, and Social Structure

### Immigrant Parents' Attributes versus Discrimination: New Evidence in the Debate about the Creation of Second Generation Educational Outcomes in Israel

JOEL PERLMANN and YUVAL ELMELECH
Working Paper No. 633, November 2010

Premigration parental characteristics and discrimination are factors that impact the educational attainment of second-generation immigrants. According to Yaakov Nahon (1987), *Patterns of Educational Expansion and the Structure of Occupational Opportunity—the Ethnic Dimension*, parental characteristics were not a factor in the ethnic educational dichotomy among the second generation in Israel. Rather, differences were the product of social realities of the new state.

Senior Scholar Joel Perlmann and Research Associate Yuval Elmelech revisit Nahon's hypothesis. Using the 1961 Israel census public-use dataset, they limit Nahon's dataset to immigrant men with children, and find that the ethnic dichotomy is clearly evident in both generations. As a result, premigration parental characteristics cannot be ignored and must be part of the explanation for the gap in educational attainment.

The Ashkenazim immigrant group originated from Romania, Poland, the Soviet Union, and Germany/Austria. The Mizrahim originated from Yemen, Iran, Morocco, Iraq, and Egypt. The groups were analyzed by origin and educational attainment of the male household head. The authors identified more precisely the group of first-generation immigrant men in the 35-44 age group who were fathers of the second-generation cohort (as defined by Nahon) aged 8–12 in 1961.

The generational transition argument contends that there is a transition in educational attainment from a first-generation multiplicity based on country of origin to a second-generation dichotomy based on the Ashkenazi-Mizrahi divide. The corollary of this argument is that it appears to strengthen the case for the role of discrimination in creating the ethnic dichotomy as an outcome in the second generation.

Perlmann and Elmelech show that Nahon's definition of the "generation of the fathers" creates a misleading impression of the educational attainment of the actual fathers of the second-generation cohort. They find striking downward revisions in schooling for the Iranians, Egyptians, and Iraqis in the Mizrahi group, and a less consequential downward revision for the Romanians in the Ashkenazi group. The reasons are twofold: the relationship between a father's educational attainment and the number of children, and the wide age range among fathers. The revised figures are more suggestive of an Ashkenazi-Mizrahi dichotomy. In addition, the second-generation gap within and between the dichotomous categories narrowed across generations.

The authors note several processes other than discrimination that explain second-generation outcomes and the decline in heterogeneity within categories: (1) a general rise in educational attainment across the two generations; (2) parental transfer of characteristics that encourage or discourage educational attainment; and (3) institutional mechanisms unrelated to discrimination, such as universal schooling and compulsory school laws.
*www.levyinstitute.org/pubs/wp_633.pdf*

## Program: Economic Policy for the 21st Century

### Explorations in Theory and Empirical Analysis

### Using Capabilities to Project Growth, 2010–30

JESUS FELIPE, UTSAV KUMAR, and ARNELYN ABDON
Working Paper No. 609, August 2010

Structural transformation is the process by which countries change what they produce, resulting in shifts in output and employment structures, and leading to high-productivity and high-wage activities. Jesus Felipe, Utsav Kumar, and Arnelyn Abdon, Asian Development Bank, Manila, Philippines, use a cross-country growth regression model to project long-term annual average growth rates for 147 countries over the

2010–30 period. They determine that China will be unable to grow at its current 9–10 percent annual pace because of a deceleration in the rate of capability accumulation. India, on the other hand, will surpass China and continue to grow at its present rate.

The authors use a set of variables that measure a country's fundamental capabilities in determining long-term growth: the sophistication and diversification of the export basket (core commodities are chemicals, machinery, and metals), and the available opportunities for future growth based on the existing set of capabilities. Their empirical specification follows Robert J. Barro's (1997) model, where growth is inversely related to the initial level of per capita income and positively related to the steady-state level of per capita output. The rationale that underlies their analysis is that technical progress and structural change evolve together, and mastering new capabilities underlies both progress and change.

The size of available opportunities that is conditional on existing capabilities (referred to as "open forest") is a measure of the potential for structural change. Open forest reflects the (expected) value of the goods that a country could potentially export. For example, countries with a high open forest (i.e., a flexible export basket) are prepared to react successfully to adverse export shocks. Open forest is calculated as the weighted average of the sophistication level of a country's potential export goods (i.e., goods not yet exported with comparative advantage), where the weight is the density or distance between each good and the goods presently exported with comparative advantage. Density (distance) measures how close a (potential) export commodity is to current export commodities with comparative advantage. It is a proxy for the probability that a country can successfully export a "new" product.

Developed countries have comparative advantage in sophisticated products that are "close" to other sophisticated products, so there is a high probability of export and a high open-forest. Developing countries, on the other hand, depend on their current export baskets and lack the capability to export (new) products—hence, they have a low open forest.

The authors use three models to project growth. The first model excludes the open-forest and investment-to-GDP ratio variables. They find that countries with a relatively low GDP per capita in 1962 grew faster over the next 45 years; countries with a greater share of acquired complex capabilities at the start of the period also grew faster. A one-percentage-point increase in the average annual growth rate of the share of core commodities with comparative advantage adds 0.25 percentage points to the average annual growth rate of GDP per capita. The second model includes open forest but eliminates the initial share in the core; here, the relationship between open forest and GDP per capita is U-shaped. The third model, which includes the investment-to-GDP ratio, indicates that a one-percentage-point increase in the investment-to-GDP ratio adds 0.03 percentage points to the average annual growth rate.

Using the estimated coefficients from the three models, the authors project average annual GDP per capita rates for the 2010–30 period. Population growth rates are added to the GDP per capita growth rates to generate a range of GDP growth rates by country. Projections show that China's growth rate will be in the range of 4.2 to 5.1 percent, while India's will be 5.8 to 7.0 percent. The authors' growth projection for China is comparable to that of other studies, while India's is a percentage point higher. Russia is projected to grow at a low rate of 1.0 to 1.2 percent, while the United States will expand at a rate of 2.1 to 2.6 percent—higher than the growth rates of Germany and Japan. The authors caution against adopting their approach to project growth rates for the short and medium terms.

*www.levyinstitute.org/pubs/wp_609.pdf*

## As You Sow So Shall You Reap: From Capabilities to Opportunities

JESUS FELIPE, UTSAV KUMAR, and ARNELYN ABDON

Working Paper No. 613, August 2010

In association with Working Paper nos. 609 and 611, Jesus Felipe, Utsav Kumar, and Arnelyn Abdon, Asian Development Bank, Manila, Philippines, develop an "Index of Opportunities" based on a country's accumulated capabilities to undergo structural transformation. This index has four dimensions that are related to a country's export basket and its position in product space: sophistication, diversification, standardness, and future export possibilities. In the long run, a country's income is determined by the variety and sophistication of its products, and by the accumulation of new capabilities with comparative advantage.

The authors show that there is a positive and statistically significant relationship between country capabilities in the 1980s and opportunities in terms of per capita GDP growth over the 1980–2007 period. They find that countries such as China, India, Poland, Thailand, Mexico, and Brazil have a significant number of capabilities today that portend positive economic performance in the long run. Good policies and incentives, however, should supplement their capabilities. Countries with poor scores, such as Guinea, Malawi, and Haiti, are in urgent need of policies that lead to the accumulation of capabilities.

The export baskets of China and India are more diversified and unique than expected, given their income levels, and these countries stand out compared to other developing (non–high income) countries. In fact, the index shows that China is third behind Germany and the United States, while India is fifth, just behind Japan. On the other hand, Russia has comparative advantage in fewer products than expected and lower opportunities for further diversification given the sophistication of its export basket. Oil-rich countries such as Saudi Arabia, Kuwait, and Oman have a high level of sophistication but a low diversification of their export baskets. Developing countries need to acquire more capabilities by increasing the absolute number of core commodities in which they have a comparative advantage, and by shifting their product composition with comparative advantage toward core commodities.
*www.levyinstitute.org/pubs/wp_613.pdf*

## Product Complexity and Economic Development

ARNELYN ABDON, MARIFE BACATE, JESUS FELIPE, and UTSAV KUMAR
Working Paper No. 616, September 2010

In association with Working Paper nos. 609, 611, and 613, Arnelyn Abdon, Marife Bacate, Jesus Felipe, and Utsav Kumar, Asian Development Bank, Manila, Philippines, use César A. Hidalgo and Ricardo Hausmann's method of reflections and definitions of complexity to rank 5,107 products and 124 countries. They determine that the most complex products are related to machinery, chemicals, and metals, while the least complex products are raw materials and commodities, wood, textiles, and agricultural products. The most complex economies are Japan, Germany, and Sweden, while the least complex are Cambodia, Papua New Guinea, and Nigeria.

The significance of the complexity of an economy's productive structure for development suggests the need to implement policies that foster the accumulation of capabilities, and to diversify into new, more complex, products. According to the authors, policymakers need to understand that product consequences vary in terms of development, and that the effort to produce and export more complex products pays off.

The overall complexity of a country's productive structure is the key variable that explains growth and development. Capabilities are the set of human and physical capital needed to produce a product. A product's complexity is a function of the capabilities it requires, while a country's complexity is a function of the number of locally available capabilities, which are inferred by a country's exports.

The authors explain Hidalgo and Hausmann's method of reflections and measures of complexity, and expand upon their empirical analysis in terms of the relationship between product complexity and income. The method of reflections is used to construct measures of product and economic complexity by examining trade data as a network that connects two mutually exclusive sets: the set of countries and the set of products exported with revealed comparative advantage. This method consists of calculating jointly the average value of the measure computed in the preceding iteration, starting with a measure of a country's diversification and a product's ubiquity. The succeeding iterations of the method refine the measures of complexity by taking into account the information from the previous iterations.

Diversification is the simplest measure of a country's complexity, while ubiquity is the simplest measure of a product's complexity—that is, a product produced by fewer countries (less ubiquitous) is more complex than a product exported by more countries. Thus, a more diversified country has more capabilities and a product that is less ubiquitous requires more exclusive capabilities.

In terms of product space, the authors find that the more sophisticated products are located in the densely connected core, while the less sophisticated products are in the periphery. Moreover, high-income countries are the major exporters of the most complex products, while low-to-middle-income countries export the least complex products—there is a positive relationship between income level and product complexity. Also, the sensitivity of export shares to income per capita increases the farther the complexity level of the product is from the average level of complexity.
*www.levyinstitute.org/pubs/wp_616.pdf*

## Technical Change in India's Organized Manufacturing Sector

JESUS FELIPE and UTSAV KUMAR
Working Paper No. 626, October 2010

The real wage–profit rate schedule allows one to analyze technical change through changes in the productivity parameters (labor and capital) and factor rewards (real wage and profit rates). Jesus Felipe and Utsav Kumar, Asian Development Bank, Manila, Philippines, examine the direction of technical change in India's organized manufacturing sector for the 1980–2007 period using the real wage–profit rate schedule. They find that the degree of technical change conformed to the international norm and was Marx biased (declining capital productivity with increasing labor productivity) until 2000, before becoming Hicks neutral (increasing capital and labor productivities). The finding suggests that the Hicks-neutral technical change is a temporary phase that is part of a long-term trend of Marx-biased technical change. The puzzling aspect of technical change in India is that there has not yet been an expected phase of steady decline in the profit rate.

The direction of technical change can be studied within the neoclassical model framework under the assumption of an aggregate production function that includes the possibility of substituting capital for labor. Contrary to the model's predication, however, there is no guarantee that a lower wage rate leads to a lower value of capital per worker, or to more employment for a given stock of capital value. And since the conditions leading to aggregate production functions are extremely stringent, the functions (for all practical purposes) do not exist. As a result, the authors use a real wage–profit rate schedule that is flexible and consistent with neoclassical and non-neoclassical models. This schedule allows them to analyze technical change through changes in the productivity parameters and in the factor rewards.

Felipe and Kumar's methodology shows that, given labor and capital productivities, there is a trade-off between real wage rates and real profit rates. This allows them to analyze the direction of technical change, which is a combination of changes in labor productivity, capital productivity, and the capital-labor ratio. Technical change can be labor saving or capital saving, and it is classified into four categories: Harrod neutral, Hicks neutral, Solow neutral, and Marx biased.

The long-term pattern of technical change (increasing labor productivity and decreasing capital productivity) can be explained by two alternative hypotheses based on the neoclassical growth model (the result of a stable production function) and the classical Marxian view (the result of bias caused by the incentive structure [driven by profitability] in a capitalist economy). In India, the share of profits in real value added increased over the 1980–2007 period, while capital productivity declined, except during the post-2000 period. The organized manufacturing sector experienced an increased profit rate, while the real wage rate rose marginally and was outpaced by gains in labor productivity. Whereas rapid capital accumulation led to a steady decline in the profit rate in most countries, this is not the case in India's manufacturing sector, which continues to exhibit a high profit rate that has increased to 45 percent since 1980. Technical change and the distribution of income have clearly favored capital.
*www.levyinstitute.org/pubs/wp_626.pdf*

## The Transition from Industrial Capitalism to a Financialized Bubble Economy

MICHAEL HUDSON
Working Paper No. 627, October 2010

The tragedy of the US financial system is that the tax code favors replacing equity with debt, so that asset-price inflation becomes the prime avenue for "wealth creation." Debt-leveraged buying and selling of real estate, stocks, and bonds distorts markets and deindustrialize the economy. These effects stem from shifting the tax burden away from property and finance.

Michael Hudson, University of Missouri–Kansas City, proposes a policy of higher taxes on property rental values. This would reduce interest charges by an equal amount and make real estate more affordable. Fiscal policy should recapture the land's site value in response to spending on public infrastructure and the general level of prosperity. In this scenario, the economy's debt pyramid would be much lower, as savings are directed toward equity investment. In addition, slower growth of debt and housing and office prices, as well as lower taxes on income and sales, would make the US economy more competitive globally.

Historically, land has provided the main source of taxes and land prices have increased as a result of infrastructure spending, the general level of prosperity, and property tax cuts. But the main feature causing higher land prices today is mortgage credit. The irony is that the "democratization" of housing is really a regression to debt peonage. A bubble economy is based on debt leveraging in search of "capital" gains, and a policy of asset-price inflation supports a bubble economy by enabling debtors to refinance. Thus, the FIRE (finance, insurance, and real estate) sector is at the core of the bubble economy.

Hudson also notes that the National Income and Product Accounts do not recognize real estate capital gains, in spite of soaring land prices, which have increased at four times the rate of national-income growth (and more than total corporate profits). Using debt leverage to bid property prices up depresses the economy with interest payments and amortization commitments, leading to a reduction in public spending and debt deflation. In opposition to the Progressive era a century ago, when taxes focused on rent and other property returns, governments have lowered property taxes, deregulated monopoly prices, and cut capital-gains taxes. Income is spent on creditors rather than production and consumption.

Since the first modern income tax, imposed in 1913, the US financial sector has favored real estate (not industry and foreign trade) and supported efforts to shift the tax burden away from property. The problem is that rising price/rent multiples and price/earnings ratios for debt-financed properties, stocks, and bonds oblige wage earners to go deeper in debt, as higher prices mean more debt overhead. The value of US real estate, which remained stable at 250 percent of national income from 1945 to 2000, has soared to the unprecedented level of 325 percent of national income.

Real estate cash flow as a proportion of national income has accelerated sharply since 1985, but tax breaks have mitigated higher taxes related to real estate's rental value. Despite the boom, property pays a shrinking share of local and federal taxes, as property owners experience substantially higher prices in excess of what they pay in taxes. The fiscal favoritism for property is a major factor polarizing wealth ownership, and depreciation allowances shelter rental income from taxation at the same time that real estate accrues capital gains. Furthermore, there is frequent turnover of commercial properties, so that sequential owners can use replacement-cost accounting to minimize their tax liabilities. This contributes to the real estate sector's ability to increase investments, cash flows, and dividends.

An important policy question is whether it is socially useful to increase real estate prices by providing tax breaks for higher mortgage debt and absentee owners. Because public sector expenditures such as transportation infrastructure increase site values, the public sector should recover its costs by taxing the increase in rental and site values. Moreover, the economic benefit to home buyers of tax-deductible interest payments is largely illusory, says Hudson, since the subsidy is passed on to the banks by replacing the cost of tax payments with interest payments. Tax-deductible interest payments encourage debt pyramiding, which has become a new mode of wealth creation in a seemingly permanent capital-gains economy. Homeowner equity has fallen from 70 percent to less than 50 percent of property values as the United States shifts from an ownership to a debtor economy because of finance capitalism. And government has become the property bubble's ultimate enabler.

*www.levyinstitute.org/pubs/wp_627.pdf*

## The Role of Trade Facilitation in Central Asia: A Gravity Model

JESUS FELIPE and UTSAV KUMAR

Working Paper No. 628, October 2010

Trade facilitation refers to the ease of moving goods across borders. Jesus Felipe and Utsav Kumar, Asian Development Bank, Manila, Philippines, examine the relationship between bilateral trade flows and trade facilitation in Central Asia. Using a gravity model, they find that improving trade facilitation resulted in significant trade gains ranging from 28 percent in Azerbaijan to 63 percent in Tajikistan. Furthermore, intraregional trade doubled.

The challenge for Central Asian countries is to generate sustained economic growth through a process of structural transformation and to reduce their reliance on natural resources. Resource exports cause currency appreciation, leading to uncompetitive manufacturing activities (the so-called "Dutch disease") as well as other problems, such as exposure to the vagaries of international markets. And countries with a more sophisticated export basket tend to grow faster.

The authors' database includes BACI (Base pour l'Analyse du Commerce International), a world database of international trade at the product level; World Development Indicators; CEPII (Centre d'Études Prospectives et d'Informations Internationales); and the World Bank's Logistic Performance Index (LPI). The results of the analysis are in line with those found in the literature: a decrease in distance by 1 percent increases trade by 1.56 percent; size of trading partners positively impacts trade flows; GDP per capita of the exporter has a positive impact on trade flows, while that of the importer has no impact; landlocked exporters (importers) trade 25 percent (38 percent) less than coastal exporters (importers). In addition, countries with common borders trade 2.4 times more than countries without a common border. Furthermore, an improvement in trade facilitation (or LPI) of 1 percent by the exporting (importing) country increases exports (imports) by 5.5 percent (2.8 percent).

As an exporter, infrastructure has the greatest impact on trade flows, followed by logistics. As an importer, customs efficiency (where all of the documentation takes place) matters. The authors note that the gains outlined by component should be assessed in terms of ease of implementation; for example, improvements in customs efficiency are easier and cheaper to implement than infrastructure. Nevertheless, infrastructure is very important because of the landlocked nature of most Central Asian countries.

Felipe and Kumar quantify the potential increase in trade (both total and intraregional) as a result of improving the overall LPI and the components of LPI. They find that trade facilitation in Central Asia is far below average and among the poorest in the world. Any improvement in the overall LPI results in significant gains for the region in total global trade (44 percent), and the gain in exports exceeds imports. The largest gains in total trade come from improvements in infrastructure, followed by logistics and customs efficiency. Improving an exporting country's trade facilitation leads to a greater increase in bilateral trade associated with sophisticated goods, high-tech products, and more differentiated commodities.

*www.levyinstitute.org/pubs/wp_628.pdf*

## The Impact of Geography and Natural Resource Abundance on Growth in Central Asia

JESUS FELIPE and UTSAV KUMAR

Working Paper No. 629, October 2010

The Central Asian countries are landlocked, rich in natural resources, and critically dependent on natural-resource exports. In association with Working Paper no. 628, Jesus Felipe and Utsav Kumar, Asian Development Bank, Manila, Philippines, document Central Asian growth in the context of other landlocked and resource-rich countries. They recommend that Central Asian countries take a more aggressive stance in diversifying their export basket toward more sophisticated (manufactured) goods, and avoid the "Dutch disease" and the deterioration of institutional quality. The resource-rich economies of Central Asia should accelerate their rate of structural transformation, while the landlocked economies should strive for further development of their service sectors and regional integration.

The authors outline a number of challenges for resource-rich and landlocked countries: (1) poor long-term growth combined with currency appreciation when export earnings boom; (2) resource revenue management; (3) governance and institutional quality; (4) the vagaries of international markets;

and (5) limited spillovers between contiguous countries. The globalization of supply chains highlights the importance of foreign trade, so landlocked countries must develop regional infrastructure networks to gain access to outside markets. The perennial challenge is to reduce dependence on natural resources and generate sustainable economic growth through structural transformation.

Felipe and Kumar divide a sample of 135 developing countries into four groups: landlocked resource-poor, coastal resource-poor, coastal resource-rich, and landlocked resource-rich. They examine growth from 1994 to 2006, a period characterized by rising commodity prices, benign global conditions, and easy access to credit. They find that a one-percentage-point increase in growth generates a spillover effect of 0.2 percentage points in a neighboring country and that the effect is stronger for Central Asian countries (0.7 percentage points). Thus, the Central Asian countries could benefit from regional integration through lower trade barriers and better trade-facilitation measures.

The authors note that resource-rich countries tend to underperform other countries in the long run. Moreover, output increases disappear, leaving the resource-rich countries worse off than they otherwise would have been. The authors therefore analyze the export structure using a cross-section of 109 countries and find that countries with a higher GDP share of manufacturing exports grow faster. They also find that the initial sophistication of a country's export basket has a positive and statistically significant impact on the future average annual growth rate. Thus, Central Asia should take a more aggressive stance that supports export diversification and upgrading.
*www.levyinstitute.org/pubs/wp_629.pdf*

### Exploring the Philippine Economic Landscape and Structural Change Using the Input-Output Framework

NEDELYN MAGTIBAY-RAMOS, GEMMA ESTRADA, and JESUS FELIPE
Working Paper No. 631, November 2010

Since the 1970s, the Philippines has experienced slower structural transformation and growth than the Republic of Korea and Malaysia. Nedelyn Magtibay-Ramos, Gemma Estrada, and Jesus Felipe, Asian Development Bank, Manila, Philippines, analyze the structural transformation of the Philippine economy and find that the industrial sector has been stagnant, while the service sector has accounted for most of the growth. They recommend policy reforms that target industry, since manufacturing, with its high intersectoral linkages, is the key economic sector, as opposed to the service sector, which has low intersectoral linkages.

Using the input-output framework for the period 1979–2000, the authors create forward and backward linkage indices in order to identify the key economic sectors. They also create an input-output multiplier product matrix to evaluate how the Philippines' economic structure has varied over time. (Each element in the matrix is the product of a forward and a backward linkage divided by the global intensity of the Leontief inverse matrix.) In addition, the manufacturing sector is subdivided into five categories: differentiated goods, labor intensive, resource intensive, scale intensive, and science based.

The authors find that the manufacturing sector has the highest linkages and is the only sector that has maintained its importance as a key sector. The resource-intensive and scale-intensive subsectors have consistently exhibited linkage indices greater than one. While these subsectors are the most important in terms of economic interdependence, their share of total manufacturing output and their capacity to stimulate growth have diminished over time. In the meantime, the differentiated-goods and labor-intensive subsectors became the equivalent of key sectors when their share of the value of output sold to other processing sectors increased by 39 percent.

Using multiplier product matrices, the authors find significant differences in the Philippine economic landscape over time, such as stronger intersectoral linkages and diminished disparities between sectors. However, the overall impact of the manufacturing sector has remained the same because economic policies have failed to ensure that manufacturing would continue as the engine of growth. As argued by Felipe in another paper, the problems underlying industrialization and sustained growth include an uncompetitive cost structure, liberalization, and poor infrastructure, as well as distributive conflicts and dysfunctional institutions. The government has implemented policies that support liberalization, privatization, and investment reforms, but its industrial policy is unclear. As a result, the industrial sector has not expanded at a rate comparable to that of neighboring countries.

Two related aspects of the manufacturing sector's structural transformation are export orientation and product sophistication. While export sophistication rose between 1980 and 2000, it subsequently stagnated, due in part to a fall in the export share of electronic microcircuits. The authors note, however, that the Philippines has gained significant comparative advantage in electronic microcircuits as well as other exports such as parts and accessories for calculating machines, glass, transistors, photographic cameras, outerwear, and copper alloys. The country is able to develop a "capability set" and become a significant player in the international market.

The Philippine challenge is to develop activities where it already has a significant presence and with a higher level of sophistication. This approach should be undertaken jointly by the private and public sectors, and identify product-specific inputs. Moreover, the development of new exports with comparative advantage requires an analysis of constraints at the product level.
*www.levyinstitute.org/pubs/wp_631.pdf*

# INSTITUTE NEWS

## New Research Associates

**Michael Hudson** is a financial analyst and president of the Institute for the Study of Long Term Economic Trends (ISLET). He is distinguished research professor of economics at the University of Missouri–Kansas City and an honorary professor of economics at Huazhong University of Science and Technology, Wuhan, China. Hudson has served as an economic adviser to the US, Canadian, Mexican, and Latvian governments, and as a consultant to UNITAR, the Institute for Research on Public Policy, and other organizations. While at the Hudson Institute, he published studies on world monetary reform (with Herman Kahn), the balance-of-payments implications of the energy crisis, technology transfer, and related topics for the Energy Research Development Agency, the National Endowment for the Humanities, and other US agencies. He is a past director of economic research at the Riga Graduate School of Law and has served on the graduate faculty of The New School for Social Research.

Hudson has written or edited more than 10 books on the politics of international finance, economic history, and the history of economic thought. He sits on the editorial board of *Lapham's Quarterly* and has written for the *Journal of International Affairs*, *Commonweal*, *International Economy*, *Financial Times*, and *Harper's*, and is a regular contributor to *CounterPunch*.

Hudson holds a BA from the University of Chicago and an MA and a Ph.D. in economics from New York University.

**Marshall Auerback** is a senior fellow at the Roosevelt Institute and a fellow of Economists for Peace and Security. A global portfolio strategist for Madison Street Partners, LLC, he has over 28 years' experience in investment management. Since 2003, he has been a consulting economist for PIMCO, and until July 2010 was a global portfolio strategist for fund manager RAB Capital PLC. From 1983 to 1987, Auerback was an investment manager at GT Management (Asia) Limited in Hong Kong, where he focused on the markets of Hong Kong, the ASEAN countries (Singapore, Malaysia, the Philippines, Indonesia, and Thailand), New Zealand, and Australia. From 1988 to 1991, he was based in Tokyo, where his Pacific Rim expertise was broadened to include the Japanese stock market. He subsequently managed an emerging markets' hedge fund for the Tiedemann Investment Group in New York (1992–95) and as an international economics strategist for Veneroso Associates (1996–99). From 1999 to 2002, he managed the Prudent Global Fixed Income Fund for David W. Tice & Associates, a USVI-based investment management firm.

Auerback graduated in English and philosophy from Queen's University and received a law degree from Corpus Christi College, University of Oxford.

## Upcoming Events

### 20th Annual Hyman P. Minsky Conference

Ford Foundation, New York City
April 13–15, 2011

The 20th Annual Minsky Conference will address the ongoing effects of the global financial crisis on the real economy, and examine proposed and recently enacted policy responses. Should ending too-big-to-fail be the cornerstone of reform? Do the markets' pursuit of self-interest generate real societal benefits? Is financial sector growth actually good for the real economy? Will the recently passed US financial reform bill make the entire financial system, not only the banks, safer?

This conference is organized by the Levy Economics Institute of Bard College with support from the Ford Foundation. Additional information will be posted to our website, www.levyinstitute.org, as it becomes available.

### The 2011 Hyman P. Minsky Summer Seminar

Levy Economics Institute of Bard College
Annandale-on-Hudson, New York
June 18–26, 2011

The Levy Institute will hold the second annual Minsky Summer Seminar in 2011. The Seminar will provide a rigorous discussion of both the theoretical and applied aspects of Minsky's economics, with an examination of meaningful prescriptive policies relevant to the current economic and financial crisis. The Seminar program will be organized by Jan Kregel, Dimitri B. Papadimitriou, and L. Randall Wray, and will be of particular interest to recent graduates, graduate students, and those at the beginning of their academic or professional careers. Teaching staff will include well-known economists concentrating on and expanding Minsky's work.

Applications may be made to Susan Howard at the Levy Institute (howard@levy.org), and should include a current curriculum vitae. Admission will include provision of room and board on the Bard College campus, and a small number of travel reimbursements ($100 for US fellows and $300 for foreign fellows) will be available to participants. Due to limited space availability, the deadline for applications is March 31, 2011.

For additional information, visit our website.

## New Levy Institute Book

### The Elgar Companion to Hyman Minsky

Edited by Dimitri B. Papadimitriou and L. Randall Wray
Edward Elgar, 2010

Hyman Minsky's analysis, in the early 1990s, of the capitalist economy's transformation in the postwar period accurately predicted the global financial meltdown that began in late 2007. With the republication in 2008 of his seminal books *John Maynard Keynes* (1975) and *Stabilizing an Unstable Economy* (1986), his ideas have seen an unprecedented resurgence, and the essays collected in this companion volume demonstrate why both economists and policymakers have turned to Minsky's works for guidance in understanding and addressing the current crisis. Beginning with Minsky's ideas on money, banking, and finance—including his influential financial instability hypothesis—subjects range from the psychology of financial markets to financial innovation and disequilibrium, to the role of Big Government in constraining endogenous instability, to a Minskyan approach to international relations theory.

# PUBLICATIONS AND PRESENTATIONS

## Publications and Presentations by Levy Institute Scholars

**PHILIP ARESTIS** *Senior Scholar*

**Publications:** "Economic Policies after the New Consensus Macroeconomics," in S. Dullien et al., eds., *The World Economy in Crisis—The Return of Keynesianism?* Metropolis-Verlag, 2010; "What Monetary Policy After the Crisis?" (with M. C. Sawyer), *Review of Political Economy*, Vol. 22, No. 4 (October); "Financial Globalisation and Crisis, Institutional Transformation and Equity" (with A. Singh), Working Paper Series No. 405, Centre for Business Research, University of Cambridge.

**Presentations:** "The 'Great Recession' and Economic Policy Implications," Fabian Society, London, England, September 30, 2010; "Current Crisis and Economic Policy Implications," 14th Conference of the Research Network Macroeconomics and Macroeconomic Policies, "Stabilising an Unequal Economy? Public Debt, Financial Regulation, and Income Distribution," Hans Böckler Stiftung, Berlin, Germany, October 29–30.

**SELCUK EREN** *Research Scholar*

**Publication:** "Using the Health and Retirement Study to Analyze Housing Decisions, Housing Values, and Housing Prices" (with H. Benítez-Silva, F. Heiland, and S. Jimenez-Martin), *Cityscape*, Vol. 12, No. 2 (September 2010).

**JAMES K. GALBRAITH** *Senior Scholar*

**Publications:** Ed., *Galbraith: The Affluent Society and Other Essential Works*, Library of America, 2010; *The Predator State: How Conservatives Abandoned the Free Market and Why Liberals Should Too*, German ed., RotPunkt; Foreword to John Kenneth Galbraith, *A Short History of Financial Euphoria*, Quatro Edições; "Inequality and Economic and Political Change: A Comparative Perspective," *Cambridge Journal of Regions, Economy and Society*, June 28; "Das G20-Debakel: Warum wir einen grünen New Deal brauchen," *Blätter für Deutsche und Internationale Politik*, August; "James K. Galbraith Champions the Beast Manifesto," *The Daily Beast*, August 2; "Thoughts on a Plan B," *New America Foundation Web Forum: The Plan B for Economic Recovery*, September 6; "On the Economics of Deficits," *The American Prospect*, Vol. 21, No. 9 (November).

**Presentations:** "The Great Crisis and the Financial Sector: What We Might Have Learned," presented at the American Sociological Association's 105th Annual Meeting, Atlanta, Ga., August 16; "The Social Dimension to a New Development Cycle in the World Economy," International Seminar on Global Governance, sponsored by the Secretariat of the Economic and Social Development Council (SEDES) and the Economic and Social Development Council (CDES), Brasilia, Brazil, September 16; keynote lecture, "Workers First! Challenge the Rules," biennial convention of the Communications, Energy and Paper Workers Union of Canada, Toronto, September 20; "The Future of the American Economy," Scholars' Strategy Network Conference, Harvard University, September 30; "A Strategic Policy: Investment, Social Security and Economic Recovery," sponsored by Economists for Peace and Security, Washington, DC, October 1; inaugural speaker, Anne Mayhew lecture series, University of Tennessee, October 5; "The Great Crisis," sponsored by the County of Elgin Community and Cultural Services and Museum, Ontario, Canada, October 15; "Reexamining Premises in the Wake of the Great Crisis," New America Foundation, Washington, DC, October 26.

**JAN KREGEL** *Senior Scholar and Program Director*

**Publications:** "Is This the Minsky Moment for Reform of Financial Regulation?" in S. Dullien et al., eds., *The World Economy in Crisis—The Return of Keynesianism?* Metropolis-Verlag, 2010; "What Would Minsky Have Thought of the Mortgage Crisis?" in D. B. Papadimitriou and L. R. Wray, eds., *The Elgar Companion to Hyman Minsky*, Edward Elgar, 2010.

**Presentations:** "An Alternative Perspective on Global Imbalances and International Reserve Currencies," 2010 Money and Banking Conference, Central Bank of Argentina (BCRA), Buenos Aires, September 2–3, 2010; "Is the Economic System Self-adjusting?" conference on "Toward an Alternative Macroeconomic Analysis of Microfoundations, Finance–Real Economy Dynamics, and Crises," sponsored by the Initiative for New Economic Thinking Institute, Budapest, Hungary September 6–8; "Finances and Technologies: How to Make Them Work Together?" Global Policy Forum 2010, "The Modern State: Standards of Democracy and Criteria of Efficiency," Yaroslavl, Russia, September 9–11; "Credit Rating

Agencies," meeting of the Ford Foundation Technical Expert Advisory Group, "Global with a Local Focus: Global Constraints to Domestic Democratic Governance," Bali, Indonesia, September 21–23; "Financial Reforms in the United States," IBASE conference on "Evaluating Recent Initiatives on Financial Reform and Changes in Global Financial Governance," Rio de Janeiro, Brazil, October 4–5; "Financial Reform in the US and Europe," seminar sponsored by the Departments of Economics and Public Administration, Tallinn University of Technology, Estonia, October 27.

**THOMAS MASTERSON** *Research Scholar*

**Presentation:** "Beyond the Economic Fright Fest: Building a Sustainable and Just Economy," Center for Popular Economics Fall Institute, New Market, Tenn., October 26–31, 2010.

**DIMITRI B. PAPADIMITRIOU** *President*

**Publications:** Ed. (with L. R. Wray), *The Elgar Companion to Hyman Minsky*, Edward Elgar, 2010; "Options for the Eurozone," *Kathimerini*, August 15; op-ed, "Compromise Is Poison," *The European*, November 17.

**Presentations:** Interview regarding the state of the Greek economy with C. J. Polychroniou, *Eleftherotypia*, September 1; discussion leader, ILO-IMF conference on "Challenges of Growth, Employment, and Social Cohesion," Oslo, Norway, September 13; interview regarding US gold holdings with Zahra Burton, Bloomberg Television, September 28; interview regarding the global economic crisis with C. J. Polychroniou, *Epsilon* (*Eleftherotypia Sunday Magazine*), October 5.

**JOEL PERLMANN** *Senior Scholar and Program Director*

**Publication:** "The Importance of Raising Mexican-American High School Graduation Rates," in G. Sonnert and G. Holton, eds., *Helping Young Refugees and Immigrants Succeed: Public Policy, Aid and Education*, Palgrave Macmillan 2010.

**Presentations:** "Views of European Races among the Research Staff of the US Immigration Commission and the Census Bureau ca. 1910" and "Descent and Intermarriage across Four Generations: The German-American Birth Cohort of 1866–80," 35th Annual Meeting of the Social Science History Association, Chicago, Ill., November 18–21, 2010.

**EDWARD N. WOLFF** *Senior Scholar*

**Presentations:** "Comparisons of Economic Well-Being in Canada and the United States in the 2000s," International Association for Research in Income and Wealth 31st General Conference, St. Gallen, Switzerland, August 22–28; "What Does It Mean to be a Middle Class American?" presented on "The Takeaway," WNYC Radio, September 27, 2010; "The Wealth Elites—Some Ideas," ISERP Elites Research Network, Columbia University, October 8–9; "Inheritances and the Distribution of Wealth; or, Whatever Happened to the Great Inheritance Boom?" seminar on "Distribution of Income and Wealth: What Do We Know?" Valencia, Spain, October 22.

**L. RANDALL WRAY** *Senior Scholar*

**Publication:** Ed. (with D. B. Papadimitriou), *The Elgar Companion to Hyman Minsky*, Edward Elgar, 2010; "The Global Financial Crisis and the Shift to Shadow Banking" (with Y. Nersisyan), *Intervention: European Journal of Economics and Economic Policies*, Vol. 7, No. 2.