

# Challenges and Opportunities in a Global Economy: Perspectives on Outsourcing, Exchange Rates, and Free Trade

A Summary of the 2004 Philadelphia Fed Policy Forum

BY LORETTA J. MESTER

“Challenges and Opportunities in a Global Economy: Perspectives on Outsourcing, Exchange Rates, and Free Trade” was the topic of our fourth annual Philadelphia Fed Policy Forum held on December 3, 2004. This event, sponsored by the Bank’s Research Department, brought together a group of highly respected academics, policymakers, and market economists, for discussion and debate about the macroeconomic impact of developments in the global economy. Our hope is that the 2004 Policy Forum serves as a catalyst for both greater understanding and further research on policymaking in an increasingly global economy.

Over the past couple of years, the widening U.S. trade deficit and rising oil prices became front page news in discussions of U.S. economic performance. The longer-term impact of globalization on our labor markets and economic well-being became a discussion topic at cocktail parties and around dinner tables. The feeling that globalization was leading to the loss of U.S. jobs made some people even question whether free trade was

as positive for the U.S. economy as economists know it to be. As world economies become more integrated, topics such as the macroeconomic effects of outsourcing, exchange rate policies and the flow of financial capital, and free trade and the cross-border flow of goods and services are garnering increased attention from policymakers and researchers. How best to seize the opportunities and meet the challenges of the global economy was the focus of the 2004 Philadelphia Fed Policy Forum.

**Anthony M. Santomero**, president of the Federal Reserve Bank of Philadelphia, began the day discussing the breadth and depth of the global economy’s influence. The international marketplace is widening geographically, and the U.S.’s relationships with its traditional trading partners in North

America and Europe, with Japan, and with the emerging markets of Asia are evolving.

In Santomero’s view, developments in the global economy are transforming the basic structure of the economy, the issues policymakers need to address, and the questions researchers are studying. The revolution in information technology and the emergence of new market economies are opening up opportunities to reallocate production and distribution around the globe.

Yet, so far, the potential effects of this outsourcing on the U.S. economy have been difficult to quantify. Similarly, there is still much to learn about the distribution of the costs and benefits of free trade. An examination of the sharp decline in the value of the dollar during the mid-1980s suggests that a substantial relative price change causes an expansion or contraction of economic activity in well-established sectors but does not open up brand new areas of international trade. Declining trade barriers, however, bring more fundamental change to the economies affected. For example, as Timothy Kehoe discussed later in the day, the North American Free Trade Agreement (NAFTA) led to an increase in trade in goods and services that were traded only in limited quantities previously and accelerated the transfer of new technologies across borders. Santomero conjectures that one possible explanation for the difference in effects is that a change in tariffs is perceived as being more permanent than a change in exchange rates; hence, it elicits a larger response. He also posits another possible explanation: that changes in exchange rates



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affect relative prices across a broader array of goods and services and so evoke smaller adjustments across that broad array, while changes in tariffs affect a smaller number of goods and services and so have narrower but larger effects.

While opening up free trade brings participants an improved standard of living, it also creates dislocations and imposes cost on individual sectors within nations. As Santomero points out, free trade is beneficial provided the people and firms who gain from it are able to compensate the losers. Policymakers need to grapple with the political problem of how to redistribute the benefits of free trade in order to build and maintain support for free-trade policy. Countries are approaching free trade along various paths. Some are pursuing global trade arrangements, others are pursuing free trade areas, and some are pursuing bilateral trade agreements. In Santomero's view, the success of each of these strategies in building the necessary support for free trade is an open question.

#### OUTSOURCING<sup>1</sup>

The Policy Forum's first session considered the issue of outsourcing. Was it a reason for employment's slow recovery in this expansion? What has it meant for the industrial sector? And what determines whether a firm will choose to outsource its operations?

Labor markets have been weaker for longer in this recovery than in any of the other postwar recoveries, even the one in 1991, which has been called the jobless recovery. The 1990 and 2001 recessions were about the same length – eight months – but it took

<sup>1</sup> Many of the presentations reviewed here are available on our web site at [www.philadelphiafed.org/econ/conf/policyforum2004.html](http://www.philadelphiafed.org/econ/conf/policyforum2004.html).

almost four years for U.S. employment to recover back to the level of its previous peak in March 2001. During the 1991 recovery, it took about two and a half years.

**Cathy Minehan**, president of the Federal Reserve Bank of Boston, elaborated on the behavior of labor markets during this business cycle. In her view, foreign outsourcing has not played a major role in the relatively slow rate of job growth during this recovery. The U.S. economy in the third quarter of 2004 looked quite healthy, growing at a sustainable pace, with the



assumed about population growth, the labor-force participation rate, and the noninflationary unemployment rate.

### Foreign outsourcing has not played a major role in the relatively slow rate of job growth during this recovery.

unemployment rate trending down, inflation well contained, and productivity growth strong. Still, sluggish job growth had been a concern during the recovery. Labor-force growth had outpaced job growth during and after the recession and opened an employment gap. Unemployment had been longer in duration than typical, and Minehan posited that this was because job losses during the recession had been of a more permanent than temporary nature. Highly educated middle-aged workers lost jobs this time, but the less educated, younger workers made up more of the long-term unemployed. Also unique to this recovery is that labor-force participation continued to decline as the recovery unfolded.

Minehan presented a range of estimates of how much job growth would be needed to close the gap between actual and full employment. These estimates depend on what is

To meet demographic growth in the labor force, which includes population growth and changing patterns of work and aging, Minehan estimates the economy needs to add about 120,000 jobs per month. If labor force participation continues on the low side, then the economy needs to create fewer jobs to absorb labor supply. But if labor-force participation reverts to its more normal level, the economy would need to add more workers. Also, the lower one believes unemployment can go without inflation becoming a problem, the more jobs can be created. Depending on the assumptions about labor-force participation and the natural rate of unemployment, Minehan estimates that somewhere between 125,000 and 225,000 jobs per month would have to be created to absorb the increase in labor supply.

Minehan evaluated two factors that the media have often mentioned

as factors for the recent unusually slow job growth. First, the loss in manufacturing jobs has continued, and it has become steeper in recent years. But in Minehan's view, while this is part of the recent story, it cannot fully explain sluggish job growth, since the economy has been losing manufacturing jobs for most of the last 30 years. Second, foreign outsourcing has expanded. Not only goods-producing industries but also service-producing industries have begun to outsource. But, again, this cannot be the full explanation. While U.S. firms are outsourcing to India and China, Minehan points out that those countries appear to be buying more services from the U.S. than the U.S. is from them, and this creates an offset in terms of jobs. The fact that U.S. firms do not point to imports or outsourcing as the main cause of extended layoffs is taken by Minehan as evidence against the outsourcing explanation of slow job growth.

Then what is the explanation? Why are U.S. firms demanding less labor? Partly, this may be due to structural change as the economy shifts its mix of products and services; partly it might be a reaction to increasing labor costs, especially the cost of benefits; partly it might be firms' response to higher uncertainty, perhaps over the staying power of the recovery because of high oil prices and geopolitical concerns; and perhaps it's because firms are driven to become ever more productive. Minehan concludes that the latter two factors – uncertainty and the drive for increased productivity – might be the best explanations of the sluggish job growth that characterized this recovery.

**Robert Lawrence** of Harvard University extended the discussion of the relatively weak employment growth the U.S. experienced during the recovery. The media have focused

## Devising reliable measures to determine trade's impact on employment is not easy.

on the role of international trade, particularly with China and India, and the effects of outsourcing on the U.S. economy were discussed during the recent presidential campaign. Lawrence described some of his recent research with Martin Baily of the Institute for International Economics that attempts to quantify the role of trade on the employment losses between 2000 and 2003. Like Minehan, he pointed out



Robert Lawrence

the sharp drop in manufacturing employment during the recent recession. In fact, while the share of employment in manufacturing declined throughout the 1990s, the number of workers employed in manufacturing didn't begin to decline until 2001, the beginning of the recession. In his view, one cannot simply attribute this to

stronger productivity growth because productivity growth was rapid not only in manufacturing but also in other sectors, which experienced fewer losses. Looking deeper at the data shows that

managers and production workers suffered the largest job losses, but many of those managers were in the manufacturing sector. Another factor during this recovery that Lawrence highlighted was the abnormally slow recovery in investment, which he feels is an important part of the story. Indeed, the largest manufacturing employment decline was in computers and electronic products, which lost about 30 percent of its jobs. In effect, it was the capital goods part of the manufacturing sector that experienced the highest job losses. In addition, exports during this cycle were quite a bit weaker than they were over other cycles, while imports were somewhat weaker. Since manufacturing productivity growth was much higher over the 2000-2003 period than either manufacturing export or import growth, jobs attributable to exports declined over this period, as did jobs embodied in imports.<sup>2</sup>

But devising reliable measures to determine trade's impact on employment is not easy. Lawrence and Baily take an input-output approach to determine the sectors in which exports create jobs and the sectors in which imports subtract from jobs in the sense that jobs in those sectors would have been higher had we produced those imports domestically rather than buy-

<sup>2</sup> Over the 2000-2003 period, manufacturing productivity growth rose 15.2 percent, manufacturing exports declined 8.8 percent, and manufacturing imports rose 2.3 percent.

ing them from abroad. Since total output equals production for domestic use plus exports minus imports, after jobs attributable to exports and imports are determined, jobs attributable to domestic use can be calculated as the residual. The results of their analysis suggest that weak U.S. domestic demand and trade both contributed to the loss in employment from 2000 to 2003, but that domestic demand had a larger effect than trade. Moreover, most of the job losses due to trade were due to weak exports and not to increased imports. Merchandise imports as a share of goods GDP were stable, 31.8 percent in 2000 and 31.4 percent in 2003, while merchandise exports as a share of goods GDP fell from 22.7 percent in 2000 to 20.1 percent in 2003. Based on data available as of December 2004, Lawrence and Baily estimate that of the 2.85 million jobs lost between 2000 and 2003, 2.54 million were due to weak domestic demand, 0.74 million were due to weak exports, and imports actually contributed 0.43 million jobs. Lawrence concludes that the job losses during the recession and first part of the recovery were “made in America.” His analysis also reveals that the decline in U.S. exports is a market-share story rather than a weak-foreign-demand story. The U.S. lost competitiveness against other suppliers to the world market. If the U.S. had held its share in world markets, exports would have risen by 23.5 percent rather than declined. The lagged effects of the rise in the value of the dollar in the late 1990s played an important role in limiting U.S. exports as well.

Finally, Lawrence turned his focus to the future of manufacturing employment. Here there are two countervailing effects. If the U.S. closes the trade deficit by 2015, this will create jobs as U.S. exports increase and imports decrease. But if at the same time productivity growth in manufacturing sta-

bilizes at its average 3.9 percent pace seen over the past decade, then net employment creation will be much less. Lawrence concluded that contrary to the discussion in the popular press, trade was not a large part of the story of the employment losses during the recession and it isn't likely to be a large part of the manufacturing employment story of the future.

While the session's first two speakers concentrated on the macroeconomic effects of trade and outsourcing, the next speaker, **Gene Grossman** of Princeton University, refocused the discussion, taking a microeconomics perspective on how

are traded in outsourcing relationships are often customized for a particular user. This is different from the types of products that trade theory usually considers, which are homogeneous goods that can be bought in multiple markets. This customization requires relationship-specific investments, which enhance the value of the relationship. Outsourcing also requires contracts to govern the relationship.

Offshoring also has distinctive features. One aspect is the cost of transportation and communication. These fixed costs can create complementarities between offshoring activities. Once one activity is moved offshore, it

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multinational firms decide to organize their production activities. Grossman explained that trade theory is concerned with the allocation of resources over the longer run rather than the shorter-run dynamics discussed by our first two speakers. He began by explaining the difference between “outsourcing” and “offshoring,” terms that are often used synonymously in popular discussions but that trade economists view as distinct. Outsourcing pertains to how a firm chooses to organize itself. Does the firm perform an activity in-house, or does it subcontract the activity to another producer? A decision to outsource is a decision to go outside the boundaries of the firm. Offshoring pertains to the location of an activity, either at home or abroad. A firm that subcontracts, say, its call center, to another firm that sets up the center in India, would be offshoring and outsourcing.

Outsourcing has several distinctive features. The types of goods that

is cheaper to offshore another activity. This can lead to an increase in the volume of activity that is moved offshore. Thus, there's a positive feedback. Once a firm has paid the fixed costs of moving an activity offshore, say, to a low-wage country, the firm's unit costs of production will be lower and it will gain sales. But the increased sales give the firm the incentive to lower its unit costs in other ways, so the firm may consider paying the fixed costs to move another production activity offshore to achieve further reductions in unit costs. Also, if transportation costs are high, firms might move several parts of the production process offshore at the same time to economize on these costs. Thus, the economy can go from exhibiting a small amount of offshoring to exhibiting a large amount in a short period of time. Hence, the fact that U.S. firms aren't offshoring that much production yet does not imply that they won't in the future. Another aspect of offshoring is that it

is often the largest and most productive firms that find it cost effective to move production offshore, since these firms are better able to bear the fixed costs needed to obtain savings on the variable costs of production and to bear the increased cost of monitoring performance across a longer distance.

The new literature on trade is drawing on the theory of the firm to address some of the interesting questions regarding outsourcing and offshoring. What accounts for the increasing fragmentation of the production process? What determines the form of offshoring? Does it differ by country? By industry? What characteristics of the firm or its activities help us understand the organizational mode it would choose?

With his co-author Elhanan Helpman of Harvard University, Grossman has studied some of the tradeoffs between outsourcing production versus producing in an integrated firm. On the one hand, specialized suppliers of inputs can usually produce more efficiently, especially if they provide those inputs to more than one customer. On the other hand, because not every contingency can be written into the contract, the supplier and the final producer may be subject to potential “hold-up” problems. The final producer may end up having to pay more than expected for the inputs. Or the supplier, after having made the relationship-specific investments needed to produce the specialized input, might find it difficult to get the final purchasers to share in the cost of those investments. This creates an incentive for underinvestment relative to what an integrated firm would do. Also, the supplier might do less customization of its input so that it could sell to other buyers if it has to. Once the input has been fully customized, it’s harder to sell to any other buyer, and this puts the input supplier

in a weak bargaining position relative to the buyer. Thus, the theory predicts that there would be a tendency toward less firm-specific investment and customization in industries with more outsourcing. In industries where these types of investment and customization are very important to the production process, integrated production rather than outsourcing would predominate.

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Other research suggests that one mechanism for getting around the potential underinvestment and undercustomization problem between supplier and final producer is cost-sharing for the investments. We often see firms providing their suppliers with specialized equipment or lending them funds to purchase such equipment or raw materials. Cost-sharing on the labor side is much less common. But this cost-sharing means that the supplier has more bargaining power in any ex post renegotiations with the producer. This hold-up problem will be worse the more capital-intensive the production process is. Hence, this theory predicts that we would see more outsourcing in industries that are more labor intensive and less in industries that are capital intensive – and, analogously, more outsourcing to countries with abundant labor and less outsourcing to countries with abundant capital. This seems to fit reality.

Another feature of countries that firms would outsource to is what Grossman calls thick-market externalities. A firm is looking for a producer to customize its input, so it wants to find partners with the proper expertise to make what it wants. This could differ from what another producer is looking for. If we think of potential suppliers arrayed along a spectrum according to their type of expertise, finding someone with expertise close to what the producer is looking for is important. The denser or thicker the market of suppliers, the more likely the producer will find one with the expertise close to what he is looking for. There is a positive feedback. If more U.S. producers outsource business services to India, it will be more profitable for Indian firms to develop the expertise to provide those services. And as more Indian firms enter the market and develop the expertise, the easier it will be for a U.S. firm to find a suitable supplier in India. On the other hand, if no firms are outsourcing to a particular country, then a firm might not want to be the first to outsource there, since it might not find the expertise it is looking for.

Grossman’s research also suggests that a country’s legal environment is an important determinant of the volume of outsourcing the country can expect to obtain. An improved contracting environment, all else equal, makes the country more attractive to outsourcers. However, all else is not equal – eventually wages rise as the contracting environment improves, and this may lead firms to look elsewhere, especially if the original motivation for outsourcing was to save on labor costs.

Another tradeoff when considering outsourcing versus integration concerns the incentives the firm can give to managers for good performance. Since an external supplier has

to put up the cost of the inputs and the labor for producing the inputs, it typically has more at stake than an internal manager does, and this would provide a better incentive for good performance. On the other hand, it is probably easier for a firm to monitor the performance of one of its own internal divisions than an external supplier. These considerations imply that outsourcing will more likely be chosen by firms with very high or very low potential productivity and that firms with intermediate productivity will choose integration. In addition, for those firms that remain integrated, offshoring is chosen most often by the more productive of these firms. A look at the data suggests this seems to accord well with actual experience. However, economists are just beginning to empirically test the theories explaining firms' choices of outsourcing versus integration and home versus offshore production. According to Grossman, this empirical work shows promise, and it, along with new theoretical models, is helping us understand which types of firms in an industry are the ones that go offshore or engage in outsourcing, which types of industries are prone to these types of trade relationships, and in which types of countries we should expect to see one form of production versus another.

#### EXCHANGE RATES

The Policy Forum's next session looked at implications of exchange rate policies and trade deficits on the macroeconomy. **Jeremy Siegel** of the Wharton School, University of Pennsylvania, began the session emphasizing the demographic component of structural trade deficits or surpluses across countries, which in his view is often neglected. Over the past 50 years, life expectancy has risen and retirement age has fallen. In 1950 in the U.S., the difference between

the two was only 1.6 years and today it is 14.4 years – a large change. However, these trends cannot continue. In 1950 in the U.S., the number of workers per retiree was seven to one. Now it is five to one, but it is slated to decline to two and a half to one by 2050. And other countries, including Japan, Italy, Spain, and Greece, are aging more quickly than the U.S. In Japan, the number of workers per retiree approaches one to one by 2050, which means the workers have to produce not only for themselves but also transfer goods to the retirees. These trends imply that retirement age has



people have to work longer because they are living longer – the retirement age has to increase almost twice as fast as projected life expectancy. Things are worse if life expectancy rises more

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to increase. To investigate the effects of these demographic trends, Siegel has built an economic model to study who in the world is going to produce the goods and who is going to buy the assets in the economy. In the model, income grows at the rate of productivity growth until a person retires and then it is zero, and consumption grows at the rate of productivity growth until a person retires and then it is flat. The outcome of the model is the equilibrium retirement age, assuming that Social Security taxes are fixed. The model suggests that by 2050 the retirement age in the U.S. has to increase to 73, which implies that the difference between life expectancy and retirement age narrows to 9.2 years. As Siegel points out, it isn't merely that

than the conservative estimates Siegel uses in his model simulation.

What can help solve this "age wave" problem? Faster productivity growth can help the situation, but only modestly. That's because when productivity growth accelerates, wages go up, and when wages go up, retirement benefits go up. So there's not much help there. Immigration might help. But a half billion immigrants into the U.S. over the next 45 years would be needed to keep the retirement age in the mid 60s; that number is far higher than the current U.S. population of 294 million.

Siegel says the hope comes from the developing world, where 85 percent of the world's population lives and where the population is much younger

than the developed countries'. The developing world's age profile is about 50 years behind that of the developed world – for example, the distribution of population by age group in India today looks like that of Japan or the U.S. in 1950. The number of workers per retiree is projected to decline in India but only to four to one by 2050. According to Siegel's model, if the developing world can grow at 6 percent per year into the future, which is optimistic but not overly so given current experience, then the retirement age in the U.S. and other developed countries can stay roughly where it is today. If growth in the developing world is less, then retirement age in the U.S. and other developed countries will have to rise. But assuming that growth in the developing world is 6 percent, then it is the developing countries that produce the goods and buy the developed world's assets. Today, the developing countries own less than 10 percent of the world's capital, but the model simulations suggest that by 2050, they will own most of the world's capital and they will be producing most of its goods. The model implies that the developing countries will be running large trade surpluses, while the developed countries will be running increasingly large trade deficits. Because most of their populations will be retired, the developed countries will need to import goods for consumption, and they will sell off the assets they have been accumulating for many decades. These trade flows come out of the demographics; they are not structural imbalances.

What are the implications for exchange rates? In Siegel's model, the trade deficits in the U.S. and the other countries of the developed world are sustainable at current exchange rates – they are driven by the demographics. Thus, even though the U.S. trade deficits are very large, they do not cause a

depreciation of the dollar. As long as foreigners want to acquire U.S. assets and Americans want to acquire foreign goods, the trade deficits won't put pressure on the dollar exchange rate. Given this, Siegel suggests that when we are trying to determine whether a particular trade deficit is sustainable, we shouldn't use a zero deficit as the

continues at about 5 percent and the current account deficit remains at about 6 percent of GDP, net external liabilities as a percent of nominal GDP would rise to 120 percent of GDP, double what any industrial country has been able to achieve and sustain. While it's possible the U.S. could sustain such a high level, he thinks it is unlikely.<sup>3</sup>

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basis of comparison but the structural deficit that will obtain in the long run because of large differences in demographics across countries.

**Michael Mussa** of the Institute for International Economics followed Siegel with an opposing view of the sustainability of the U.S. current account deficit and the path of the exchange value of the dollar. Acknowledging that a wide range of outcomes for both exchange rates and the deficit have been observed in the past, Mussa made a case for why, in his view, the dollar remained overvalued. In his view, it is difficult for the U.S. to borrow against many of its assets on a world market. For example, borrowing against our domestic human capital is not really feasible. In the U.S., U.S.-owned assets abroad used to exceed foreign-owned assets in the U.S. by about 25 percent of GDP. Now, it is the opposite – foreign-owned assets in the U.S. exceed U.S.-owned assets abroad by about \$2.5 trillion, or 25 percent of GDP. Mussa points out that no industrial country has ever seen that ratio go above about 60 percent of GDP, but if nominal GDP growth con-

Sustaining a current account deficit of 2 to 3 percent of GDP over the next decade or longer would be feasible in Mussa's view, since there are many reasons that foreigners want to invest in the U.S.

What's needed to bring the current account deficit down from 6 percent of GDP to what, in his view, is a more sustainable level? Mussa cites two things: first, a switch in the pattern of world demand toward purchases of U.S.-produced goods and services and therefore away from rest-of-world goods and services; second, an adjustment in the level of spending relative to income both in the U.S. and abroad. For the U.S. that means reducing our spending; for the rest of the world that means increasing their demand relative to their income.

Mussa says that both the private sector and the government sector in the U.S. will need to change their behavior to effect these changes. The

<sup>3</sup> In contrast, Jeremy Siegel said in the session's question and answer period that he thinks it is quite likely that the U.S. will break the historical maximum of 60 percent of GDP.



**Gertrude Tumpel-Gugerell**

private sector needs to save more; the government needs to put its Social Security and Medicare budgets in order. If the dollar depreciates, it will help reduce the drag from lower government spending by improving the U.S.'s net export position. If public-sector expenditures are not controlled, then if the dollar depreciates substantially, in Mussa's view, the Fed will need to raise interest rates to curb overly expansionary effects of higher net exports on U.S. economic growth.

Mussa believes the rest of the world faces a more difficult situation than the U.S., since they need to get demand up. In Europe, he looks to the European Central Bank to use monetary policy as much as it can. In Japan, Mussa thinks there is not a good deal more that monetary policy can do in the short run. The developing countries of Asia, which have been resisting an exchange rate correction, will need to allow that to happen. In Mussa's view these countries' massive interventions to buy dollars in order to keep their currencies from appreciating must slow down. Their purchases of U.S. Treasury securities as investment need not stop, but Mussa feels that \$100 billion or \$200 billion fewer purchases per year over the next couple of

years would be a welcome development.

Mussa concluded with his perspective on whether a strong dollar is good or bad for the U.S. When the dollar is strong, the U.S. gets paid high prices for the goods and services it produces and sells abroad, and it pays relatively low prices for the goods and services it purchases from the rest of the world. All else equal, that is a good thing.

But, again, all else is not necessarily equal. If the value of the dollar is so high that demand for U.S. goods and services by the rest of the world falls so that the U.S. doesn't earn enough on what it sells abroad to afford what it buys from the rest of

countries of a number of emerging market economies.

**Gertrude Tumpel-Gugerell**, a member of the Executive Board of the European Central Bank, brought an international perspective to the discussion. She discussed the question of whether large swings in exchange rates matter for the real economy and what the appropriate monetary policy response to exchange rate swings is.

The consensus of both academic economists and policymakers is that exchange rate movements are difficult to predict and that random walk models generally predict as well as standard macroeconomic models. Since exchange rates are asset prices, they are strongly influenced by expectations, which are difficult to measure and to include in formal models. Tumpel-Gugerell points out the irony, then, in the many calls for policy responses

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the world, the U.S. will have to borrow more to finance the gap. And we may want the value of the dollar to fall in order to restore equilibrium. As Mussa puts it, the goal is to have the strongest dollar consistent with maintaining a sustainable equilibrium position in our external payments position over time. In Mussa's view, that's a dollar that is a fair bit weaker than seen in 2001 through early 2002, and significantly weaker than the current value on a trade-weighted basis – perhaps not much weaker against the currencies of most of the other industrial countries but much weaker against the curren-

every time the value of the currency moves markedly. She views this as a sign that exchange rate movements are seen as important, despite all the difficulties in understanding them.

The international monetary system has generally evolved toward greater exchange rate flexibility between major currency pairs. She distinguishes several major phases in which this evolution has occurred. The period of the gold standard was one of fixed exchange rates and convertibility of currencies into gold. It ended with the advent of World War I. During the interwar periods, coun-

tries went progressively back to the gold standard with the goal of restoring fiscal discipline. But this broke down again after the Great Depression convinced many that the system was faulty, and there was a brief period of flexible exchange rates. The Bretton Woods Agreement in 1944 led to all the major industrialized countries pegging their currencies to the U.S. dollar. This lasted until 1971. Tumpel-Gugerell calls the 1970s the trial-and-error system, which led to more flexibility in the 1980s and the 1990s, and the creation of the single European currency. She characterizes the current system as one of flexible exchange rates among major currencies accompanied by international cooperation.

Within the current framework, how much do exchange rate movements matter for the economy? Tumpel-Gugerell distinguishes between effects taking place through the price-competitiveness channel and those associated with market uncertainty. Regarding the former channel, theory suggests that exchange rate movements will have less of an effect on closed economies than on small open economies. Research suggests that a persistent exchange rate movement can have a significant effect on prices and GDP in the euro area, but that the effect usually is seen with a lag. For example, firms can squeeze their profit margins or can attempt to hedge against adverse exchange rate movements, thus delaying the effect of a persistent move. The European integration process, including the introduction of the euro, has reduced instability generated by shocks to the exchange rate. In Tumpel-Gugerell's view this reduction in volatility should help to boost trade across the countries in Europe.

But according to Tumpel-Gugerell, the main way to limit undesirable exchange rate instability is for poli-

cymakers to focus on achieving and maintaining sound macroeconomic fundamentals. She believes that if monetary policymakers are committed to price stability, this will lead to exchange rate stability over the long run.

Kehoe focused his talk on the lessons we've learned over the past 25 years from the economic integration that has taken place – from our empirical experience with integration and from economic models, from where the

## While opening up to free trade and investment may be an important ingredient for generating economic growth, it is not sufficient.

Sound and sustainable fiscal policy will also play a role in achieving economic balance among the world's economies.

### FREE TRADE

I had the pleasure of moderating our final session, which looked at free trade. For economists, free trade is not very controversial – it offers participants the benefit of an improved standard of living. But the recent negative discourse in the popular press has led to a more nuanced discussion of the benefits – more documentation of those benefits – as well as discussion of the dislocations and other costs of the transition to free trade.

**Timothy Kehoe** of the University of Minnesota discussed how free trade agreements have affected trade and capital flows across countries. There has been an expansion of regional trade agreements in both Europe and the Americas. The U.S. signed a trade agreement with Chile in 2003, negotiated the Central American Free Trade Agreement with a number of countries, and has been in negotiations with several South American countries. The European Union has been expanding as well.

economic models have worked well in predicting the effects of integration, and from where they have failed and need improvement.

Kehoe's first lesson is that while opening up to free trade and investment may be an important ingredient for generating economic growth, it is not sufficient. The Mexican Apertura, or opening up of the country, which began in the late 1980s and led to the North America Free Trade Agreement (NAFTA), had a large impact on Mexico, generating large increases in foreign trade and investment. Mexico now exports almost twice as much as the rest of Latin America combined. But while it generated significant growth in exports, it did not generate much overall economic growth – at



Timothy Kehoe

least not until after the 1994-1995 crisis there.

Lesson two is that a free trade area such as NAFTA or the European Union is neither necessary nor sufficient for generating foreign trade and foreign investment. Chile has just negotiated a free trade agreement with the U.S.; yet after its economic crisis in 1981-1982, its exports surged and are now about 25 percent of its GDP. Its GDP growth also accelerated sharply, and the increase was not only export driven. In contrast, Greece joined the European Economic Community in 1980, yet its exports as a percent of GDP are still under 10 percent, and foreign investment in Greece is also very small.

Lesson three is that to get foreign investment, domestic institutions such as banks are important; protections of investors' rights are important; property rights – like bankruptcy laws – are important. Although the Mexican banking system was opened to foreign participation in 1995, it still is not functioning well in financing private investment, which is still low compared to other countries like Chile. Thus, signing a free trade agreement is not a guarantee of direct investment.

Kehoe's fourth lesson reiterates Siegel's point, namely, that demographic differences can be important determinants of international capital flows. Mexico's baby boom was much stronger than the U.S.'s, and Mexico today has many young people. The median age in Mexico is 20 compared to 34 in the U.S. Similarly, the other countries in Latin America are young. In contrast, the European integration is between rich, old, and aging countries and poor, old, and aging countries. These demographics will affect both trade and capital flows across countries.

But Kehoe's fifth lesson is that capital flows may be substitutes rather

than complements of trade flows. When we look at the U.S., we see that the volume of trade flows between the U.S. and our NAFTA partners is much higher than between the U.S. and the European Union, while the volume of investment flows is much higher with

are accompanied by trade deficits and depreciations of the real exchange rate. These inflows eventually stop, the trade deficit becomes a surplus, and the currency appreciates. Kehoe points out that this happened after Spain joined the European Com-

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Europe. Kehoe posits that this might be because the U.S. is afraid of further trade restrictions and protectionism if trade volumes increase in Europe.

Lesson six is that applied general equilibrium economic models of NAFTA's impact did a poor job of capturing the very significant increase in trade volumes in North America, and they did a poor job of identifying the sectors in which trade increased. For example, if we compare one of the best model's predictions of U.S. exports to Mexico in different industry sectors over 1988-1999 to the actual data on exports, we find a correlation of less than 1 percent. One reason the models performed poorly is that they were unable to capture a fact shown in Kehoe's research: that much of the expansion of trade took place in sectors where there was little or no trade before trade liberalization. Models that focus on the exchange rate will not capture this new-goods effect; it happens with changes in trade policy.

Lesson seven is that dynamic applied general equilibrium models can do a good job capturing the path of capital flows when a country opens itself up to foreign investment. Flows of capital into a relatively poor country that opens itself to foreign investment

munity in 1986 and capital started flowing into the country. In 1992, the process reversed, and while the Spanish government was caught off guard and called the outflow of capital a crisis, this is exactly what the model predicted would happen.

Kehoe's eighth and final lesson is that signing a free trade agreement does not always mean an increase in free trade. It depends on the level of trade barriers and tariffs the country operated under to begin with. In Kehoe's view, Ecuador's signing a free trade agreement with the U.S. is a large step toward free trade, since there's a high level of tariffs and trade barriers there. For Latvia and Slovenia, joining the European Union will give them access to European markets, but it will increase the level of tariffs under which they currently operate and so will be a step away from free trade. Kehoe predicts they will find it difficult to import to non-EU countries.

Douglas Irwin of Dartmouth College elaborated on the evolving debate over free trade. He pointed out that the first debates over U.S. trade policy took place when the new Congress met at Congress Hall, just a few steps away from the Philadelphia Fed. James

Madison of Virginia introduced the first tariff bill on the floor of the U.S. House when the first Congress met in April 1789. It passed in July, but only after a lively debate. Indeed, trade policy has always been a controversial aspect of U.S. economic policy. Perhaps the main reason is that trade is associated with economic change and it affects the distribution of income within the country. This means that trade is likely to always elicit various opinions. Irwin points out that the same arguments against trade tend to recur time and time again and that the current complaints that the U.S. can't compete because of low wages abroad, that foreign countries are unfair traders, and that trade will damage the economy have all been heard before. Nonetheless, the debate on trade has shifted over time. In the 1970s one of the issues was that multinationals were draining America of capital, investing in foreign countries rather than at home. In the 1980s, the debate focused on Japan and its high-tech development. In the 1990s, NAFTA was the issue. Currently, outsourcing to China and India has moved to the forefront. Irwin's study of history suggests that these issues will pass and, by 2010, a new country or issue will emerge as the focus of the debate.

When economists are asked if trade is good for the U.S. economy, the answer is yes. Despite the dislocations and reallocations that have to be borne, the steady march of technology and economic adjustments have allowed us to reap higher per capita income across the decades. Irwin acknowledges that going through the adjustments can be painful, but stopping the dislocation and economic change would create many more problems. And even though fear of trade has been constant through our history, the U.S. has consistently over the past 30 or 40 years pursued an agenda of open-

ing up markets and keeping the U.S. market open. Irwin points out that the U.S. has done this in two ways. It has negotiated with foreign trade partners in the context of the World Trade Organization, and it has negotiated a number of regional and bilateral trade agreements. There is some debate among economists about whether the bilateral agreements are better or worse than multilateral negotiations, but both are proceeding with increased momentum.

This raises the question: if there is so much fear of globalization, why is it proceeding apace and why have markets remained open? Irwin points

Canadian softwood lumber and steel. The users of Canadian wood have made it much more difficult for the U.S. government to give protection to domestic producers. Steel consumers put pressure on the Bush administration against steel tariffs. A third factor that has worked against protectionism is the macroeconomic stability the U.S. has enjoyed over most of the post-war period. Economic growth helps ameliorate the pain associated with the economic dislocations that accompany increased trade and the opening of markets.

Irwin pointed to an example that illustrates that protectionism is

## Recent research has shown that countries that are more open to trade have higher ratios of private-sector credit to GDP.

to three factors that help explain why there hasn't been a great backlash against globalization. First, domestic industries that compete with our imports, such as shoes and apparel, have been losing their political importance. They have shrunk in size or, in some cases, have been totally wiped out. For example, in the mid 1960s we imported a third to a half of shoes consumed in the U.S.; now we import over 95 percent. Also, a number of industries that faced foreign competition, such as semiconductors and automobiles, have gone global. In the past, they have argued for trade protection. Now, they've undertaken foreign investments, have diversified their production across many countries, and import many goods themselves. A second factor is that many U.S. imports are intermediate goods. Their consumers are businesses, not households, and they are dependent on getting these imports to carry out their own production. Irwin points to two examples:

increasingly being viewed as a poor policy option. The state of Indiana has considered legislation to ban state contracts going to firms that outsourced to other countries. Not outsourcing the processing of state unemployment claims would cost the taxpayers of Indiana \$16 million that could otherwise be spent on public works such as roads or schools, tax cuts, or servicing the debt. This cost has been publicized, and this, plus the fact that these jobs are not currently in Indiana anyway, has led many to question the proposed legislation.

In Irwin's view it will be difficult for trade opponents to move the U.S. away from its current very low tariff position and its open market. Irwin ended his presentation saying he believes there will always be critics of free trade and they will need to be rebutted by those who have a stake in and support the system of open world trade.

In recent testimony before the Finance Committee of the U.S. Senate,

Chairman Greenspan expressed the view that it is essential that we not put “our future at risk with a step back into protectionism.”<sup>4</sup>

How can we ensure that U.S. markets remain open? Or, as **Raghuram Rajan**, economic counselor and director of research at the International Monetary Fund asks, how can we build constituencies for free trade? First, as was pointed out earlier in the day by Kehoe, it’s important to have well-functioning institutions and well-defined property rights to realize the benefits of free trade. Those benefits include stronger economic growth. But also, over the 20th century, countries that have become more open for trade have tended to have better developed financial markets, which in itself helps to foster growth. This is an example of a positive feedback – better institutions allow the benefits of free trade and free trade allows development of better institutions.

Why do such correlations exist between openness and financial development? One possibility is that free trade strengthens the domestic constituencies for financial sector reform. For example, industries that want to begin trading more will need to finance that trade and will exert pressure on financial markets to develop to meet their needs. Or industries that feel the competition from foreigners could push for improved financial markets to aid them in remaining competitive. Recent research has shown that countries that are more open to trade have higher ratios of private-sector credit to GDP, and that seems to come about because the constituencies that are pro-finance become more powerful after trade liberalization.

<sup>4</sup>See Testimony of Chairman Alan Greenspan on China, before the Committee on Finance, U.S. Senate, June 23, 2005, [www.federalreserve.gov/boarddocs/testimony/2005/20050623/default.htm](http://www.federalreserve.gov/boarddocs/testimony/2005/20050623/default.htm).

But Rajan argues that the direction of causality may run the other way as well. The development of financial markets may increase the power of constituencies in favor of free trade relative to those opposed. Trade liberalization creates winners and losers; it does not make everyone uniformly better off. So to understand how constituencies in favor of free trade are developed, one must identify the winners and losers. Economic theory suggests that those who have the

### The development of financial markets may increase the power of constituencies in favor of free trade relative to those opposed.

endowments in which the country is rich will be more pro-trade, since those who are relatively higher endowed will benefit from trade. For example, the U.S. has more highly educated people than other countries. So opening up U.S. markets to trade will tend to benefit these people, since the U.S. is the country that can supply this type of worker. Thus, they are the ones that are pro-trade in the U.S. The low-skill workers in the U.S. will be hurt by free trade, since other countries can supply low-skill workers. Thus, in the U.S., the low-skill workers will tend to be against free trade. In poorer countries, where low-skill workers predominate, the more highly educated tend to be against free trade.

But if free trade is beneficial overall, why can’t the winners compensate the losers? Rajan conjectures it is because many of the required side payments would need to be enormous, and they would have to take place over

such a long period of time that they would be hard to commit to.

If this is the case, then how does a country go about changing the political balance in favor of free trade? Rajan sees three broad possibilities. The first is through committing to external agreements like those of the World Trade Organization or setting a date far in the future when the trade and capital markets will open up, for example, the United Kingdom’s big bang. The second possibility is through a crisis, as happened in India. The crisis exposes the fact that the country’s policy of closed markets creates very bad outcomes, or the crisis reduces the relative political power of the status quo, who are against open markets. The third possibility is through building constituencies. In developing countries this entails showing them that there is more opportunity. The more trade that is occurring outside a country’s borders, the more its own firms want to partake. Also, when the rest of the world is enjoying more flows of goods and capital, there can be more leakages across a country’s borders, and the country may find it more advantageous to open itself up and control the flows, rather than have them go on without any control. Consumers also see the benefits of free trade in the form of lower prices and can create a pro-trade constituency. Firms that are more efficient are less likely to fear the increased competitiveness that comes from opening up markets. Hence, increasing entry into their industry can create more efficient firms that then emerge as a free-trade constituency. Similarly, individuals may fear free trade because they don’t have access to education or the resources that will enable them to handle the changes that free trade will bring. Creating a safety net for these individuals will help shift their opinions regarding free trade.

Rajan concluded his presentation with some data from the World Value Survey, a survey of over 150,000 individuals in 66 countries between 1981 and 2000, which shows that preferences for competition, a proxy for free trade, do vary with factors such as education, income, age, and type of occupation. It turns out that younger people are more against competition than older people. This might reflect the fact that younger people tend to be producers and fear the job loss and older people tend to be consumers and value the lower cost of goods. Those with higher wealth, higher social status, and higher education tend to favor competition. Unskilled workers are more against competition than moderately or higher skilled workers. An interesting finding is that small business owners' attitudes toward competition are influenced by their access to credit, while managers' and employees' attitudes are not. Small-business owners

in countries with strong credit markets are much more likely to be pro-competition than those in countries with weak credit markets. That is, if they have access to resources and feel they can get the resources to run their businesses, they favor competition. This is evidence that institutions matter and that financial development and well-functioning institutions that allow access to resources can foster freer trade – the reverse causality mentioned earlier. It also suggests that a country that finds itself with dysfunctional institutions might find it very hard to build support for changing those institutions and to build a constituency for free trade. Can an institution like the International Monetary Fund help? In Rajan's view the answer is yes, but only at the margin. There needs to be momentum within the country itself for change. Large, developed economies can help develop that internal momentum by helping to ensure that

trade spreads to the poor, developing countries. Freer trade offers outside opportunities to the people in those countries, who can then develop into a constituency within the country in favor of even more openness and freer trade.

## SUMMARY

The 2004 Policy Forum generated lively discussion among the program speakers and audience participants on a number of the challenges and opportunities brought by an increasingly global economy. Our hope is that the ideas raised will spur further research and foster a greater understanding of today's economy.

We will hold our fifth annual Philadelphia Fed Policy Forum, "Fiscal Imbalance: Problems, Solutions, and Implications," on Friday, December 2, 2005. You will find the agenda on page 35. 