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Gross Capital Flows: Dynamics and Crises

Capital flows by foreign and domestic agents seem to be driven by shocks that affect them asymmetrically. Understanding both types of flows seems crucial

International capital flows have played an increasingly important role in the business cycle of developed and developing countries, especially during financial crises. This has prompted the growth of a large literature analyzing the cyclical behavior of these flows. The literature has focused on *net* capital flows, defined as the difference in *gross* capital flows—that is, net purchases of domestic assets by foreign agents minus net purchases of foreign assets by domestic agents. Much less is known about the behavior of gross capital flows.

Understanding the behavior of gross capital flows seems crucial, however, since capital flows by foreign and domestic agents are probably driven by different incentives. And many important questions remain unanswered. For example, are periods in which foreign agents purchase domestic assets also periods in which domestic agents sell foreign assets? Is there a positive or negative correlation between capital flows by foreign and domestic agents? What is the behavior of gross capital flows over the business cycle and during financial crises? We know that crises are associated with reductions in net capital inflows. But are these reductions on average due to sales of domestic assets by foreign agents, purchases of foreign assets by domestic agents, or both? How large and how

volatile are gross capital flows relative to net capital flows?

To address such questions, a new paper by Broner, Didier, Erce, and Schmukler documents new stylized facts about the dynamics of gross capital flows: the capital inflows by foreign agents (CIF) and the capital outflows by domestic agents (COD). CIF and COD are constructed from balance of payments data from the International Monetary Fund's International Financial Statistics, covering 1970–2009 for 103 countries. The analysis leads to three main conclusions.

First, over the past four decades the volatility of gross capital flows (CIF and COD) has been large and increasing, especially relative to the much lower volatility of net capital flows. This reflects the increasingly positive correlation between CIF and COD.

Second, gross capital flows are procyclical: During expansions foreign agents increase their purchases of domestic assets and domestic agents increase their purchases of foreign assets. During crises, especially severe ones, both CIF and COD decline, though CIF tends to fall more.

Third, a decomposition of gross capital flows reveals interesting heterogeneity in the behavior of their components around crises. For all country groups the reduction in CIF is due to declines in all its components. For developed countries the reduction in COD is due to declines in equity, portfolio debt, bank flows, and direct investments but not in reserves. For developing countries declines in

(continued on page 8)

IN THIS ISSUE

Gross Capital Flows: Dynamics and Crises ... page 1

What does the evidence show about the behavior of gross capital flows during financial crises?

Crisis Recovery and the Role of Credit: Do Phoenix Miracles Exist? ... page 2

Do firms experience Phoenix Miracles—where their sales recover without a recovery in external credit?

Basel III and Banking Flows to Emerging Markets ... page 3

Basel III rules are expected to bring clear benefits. But will they also have costs for developing regions?

Decentralization and Municipal Spending Ability in Developing Countries ... page 4

Decentralizing spending has been aimed at responding more effectively to local needs. Has it worked?

When Starting with the Most Expensive Mitigation Options Makes Sense ... page 5

Starting with the cheapest options for reducing greenhouse gas emissions risks locking an economy into a carbon-intensive path

Evaluating the Impact of Trade Interventions ... page 6

Can trade projects be evaluated rigorously? Yes, as long as one is not wedded to a particular method

The Influence of Society on Preferences ... page 7

A new paper challenges the standard assumption in economics that individual preferences are not susceptible to social influences

Crisis Recovery and the Role of Credit: Do Phoenix Miracles Exist?

Evidence from the 1990s and the 2008 financial crisis provides little support for the notion of creditless recoveries

One of the most hotly debated policy questions relating to the 2008 global crisis is how to stimulate business recovery. Because the crisis started in and severely affected the financial sector, the conventional assumption is that this sector must recover before the corporate sector can. While this conjecture appears reasonable, it has been challenged by numerous crises in recent years in which the real sector recovered before the financial sector did.

Of particular interest are episodes characterized as Systemic Sudden Stops, or 3S episodes, where declines in output are associated with sharp declines in the liquidity of a country's financial sector (Guillermo Calvo, Alejandro Izquierdo, and Ernesto Talvi, "The Economics of Sudden Stops in Emerging Economies," *American Economic Review* 96 [2006]: 405–10). These creditless recoveries—where external credit collapses with output but fails to recover as output bounces back to full recovery—have been termed "Phoenix Miracles."

Empirically, 3S episodes offer an unusual natural experiment: they provide an opportunity to observe how firms are affected in economies that have been subjected to a financial shock that precedes or occurs at the same time as a recession. Until now there has been little firm-level evidence on how corporations respond to crises in general. A new paper by Ayyagari, Demirgüç-Kunt, and Maksimovic uses a database of listed firms in emerging markets to analyze the recovery process after a financing crisis. The authors ask, Do firms experience Phoenix Miracles—where their sales recover without a recovery in external credit?

The authors use firm-level data from the Bloomberg database for nine emerging market 3S episodes over

the 1990s—Argentina, Indonesia, the Republic of Korea, Malaysia, Mexico, the Russian Federation, Thailand, and two episodes in Turkey. Using data on U.S.-listed firms from Compustat, they then study recovery from the 2008 financial crisis in the United States and compare the U.S. experience with the 3S episodes. The analysis leads to several main findings.

First, while averaged macro data across the nine 3S episodes are consistent with the notion of Phoenix Miracles—with output recovering one period before credit—a closer look at the evidence suggests heterogeneity across countries. For example, in Korea and the two crisis episodes in Turkey private credit recovers at the same time as GDP, calling into question whether these cases are truly Phoenix Miracles.

Second, the evidence at the micro level is weaker. Aggregate firm-level data provide little support for Phoenix Miracles, since sales and short-term borrowing recover simultaneously. Analysis of the financial statements of individual firms shows that only a small fraction of firms follow a pattern of recovery in sales without a recovery in external credit, and even these firms have access to external sources of cash.

Third, the authors find no evidence that the U.S. recovery is a Phoenix Miracle. At the macro level, GDP and bank credit (defined as the aggregate assets held by banks excluding vault cash) decline in 2008 but begin to recover simultaneously in 2009. At the firm level, sales and debt in current liabilities (aggregated across publicly traded firms in Compustat) recover simultaneously, suggesting that output recovery was not creditless.

Fourth, analysis of what drives the recovery process suggests that recovery is not creditless and that on average firms replace short-term credit with long-term external finance through long-term borrowing or capital issuance. Thus these potential miracles are miracles in a very restricted sense, if at all, since firms rely not on

short-term but on long-term financing. So the analysis finds little support for the mechanism suggested by Phoenix Miracles—that firms finance themselves primarily through cash saved by cutting investments following a crisis.

Finally, examination of the investment and financing behavior of firms during the crisis period and recovery finds that in both the emerging markets and the United States firms use positive cash flow shocks to add to their cash balances and repay short-term debt. Firms that face a negative cash flow shock and are presumably financially constrained are still able to borrow in the long-term debt markets and issue equity, calling into question the notion of creditless recoveries.

Overall, the results provide little support for the phenomenon of Phoenix Miracles, with even the macro evidence showing a great deal of heterogeneity in the relationship between GDP and credit recovery across the emerging markets. Since the firms in the sample are large publicly listed corporations, and thus able to access long-term debt and equity markets to finance their recovery even when short-term bank credit declines, Phoenix Miracles for small firms are likely to be much more difficult. The findings therefore justify efforts of governments to offset the credit crunch and ensure a continuous flow of credit after the latest crisis.

Meghana Ayyagari, Asli Demirgüç-Kunt, and Vojislav Maksimovic. 2011. "Do Phoenix Miracles Exist? Firm-Level Evidence from Financial Crises." *Policy Research Working Paper 5799*, World Bank, Washington, DC.

Basel III and Banking Flows to Emerging Markets

Basel III rules could lead to a decline in banking flows to developing regions—with some being affected more than others

The global financial crisis has led to a range of reform proposals for the regulatory framework governing banks with a view to enhancing their resilience. Agreement has already been reached on some aspects of these new rules—collectively referred to as Basel III. The proposed reforms are expected to reduce the frequency and intensity of banking crises. But there is concern that the costs of moving to a stricter regulatory environment, such as higher capital adequacy ratios, may lead banks to raise interest rates and reduce lending. If Basel III reforms are implemented over a short period, there could be a drag on what is already a weak economic recovery.

To the extent that this short-term impact materializes, emerging markets are likely to be affected through two channels:

- The *trade flows channel*, which acts through lower economic activity in advanced economies and correspondingly lower imports by these countries from emerging markets.

- The *financial flows channel*, which takes place through increases in interest rates in advanced economies and the corresponding decline in banking flows from advanced to emerging markets. Both a direct lending effect (lower lending from banks in advanced economies to nonbanks in emerging markets) and an indirect lending effect (lower lending from banks in advanced economies to banks in emerging markets) are likely through this channel.

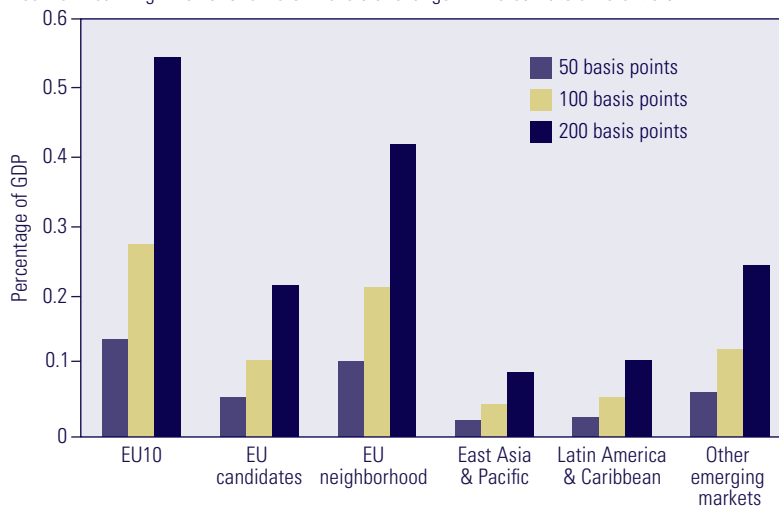
Focusing on the financial flows channel, Ghosh, Sugawara, and Zaldendo simulate the likely effect on banking flows to emerging markets of increases in lending rates in advanced economies. The simulations are based on an analysis of the determinants of bilateral banking flows from 17 advanced economies to 38 emerging markets in the locational banking statistics of the Bank for International Settlements. The analysis includes the push (global) factors and pull (domestic) factors identified in the literature on capital flows as well as indicators of nonfinancial and financial bilateral links. Among these indicators the authors include controls for financial interconnectedness between lending and borrowing countries. They find that emerging markets that are highly dependent on one advanced economy

for funding are less attractive for funding from other countries; at the same time, however, the advanced economy on which an emerging market is highly dependent is less likely to pull out its resources. The empirical methodology also controls for financial contagion, and the authors find that banking flows to emerging European economies are statistically more stable than flows to other developing regions.

The simulations show that implementation of Basel III could lead to a decline of 3 percent in banking inflows to emerging markets for each 100-basis-point decline in interest rate differentials between each lending and each borrowing country. For each region the impact depends on its dependence on banking flows. For example, for the EU10 countries, which depend heavily on such flows, the decline could be as much as ¼ percent of GDP if the change in interest rate differentials is 100 basis points and just over ½ percent of GDP for a change of 200 basis points. Lower levels are likely in other emerging markets (figure 1).

Of course these simulations should be viewed with caution. They assume that the behavioral responses will remain valid even after a structural change of the kind introduced by Basel III requirements. In addition, the calculations do not control for a reassessment of risks in emerging markets following the global financial crisis. Indeed, it can be argued that on this count alone capital flows are likely to be more subdued than in the period before the crisis. In conclusion, developing regions are likely to experience a decline in banking flows—though a manageable one—if Basel III regulations lead to a decline in interest rate differentials, and some regions will be more affected than others.

Figure 1. Expected Effect of Basel III on Banking Flows to Emerging Markets
Decline in banking inflows for different levels of change in interest rate differentials



Note: EU10 refers to the 10 Central European countries joining the European Union in 2004 and 2007. EU candidates are countries in Southeastern Europe plus Turkey. EU neighborhood includes Belarus, Moldova, Ukraine, and the countries in the Caucasus.

Swati R. Ghosh, Naotaka Sugawara, and Juan Zaldendo. 2011. "Banking Flows and Financial Crisis: Financial Interconnectedness and Basel III Effects." Policy Research Working Paper 5769, World Bank, Washington, DC.

Decentralization and Municipal Spending Ability in Developing Countries

For fiscal decentralization to succeed, budget allocations need to match not only local needs but also local capacity

Over the past 30 years there has been a wave of fiscal decentralization reforms across low- and middle-income countries. The hope has been that local governments would be better placed than the central government to respond effectively to local needs—thanks to both a better understanding of those needs and greater accountability. But the results have been mixed. In many countries soft budget constraints have led to irresponsible spending and pressure on the national accounts. Local elite capture has often kept decentralization from fulfilling its promise of offering greater accountability. A lack of local administrative capacity has also undermined the success of reforms. Reviews of early programs of decentralization found that in many places it was a case of “too much too soon.”

Recent studies have identified a set of prerequisites for successful decentralization in developing countries. These include an educated and politically aware electorate, a prevalence of law and order, effective political competition, a capable local administration, and effective oversight mechanisms. But because of data limitations such studies have been either qualitative or focused on only one factor. There is a lack of knowledge about the relative importance of the different factors determining the success or failure of decentralization reforms.

A new study by Loayza, Rigolini, and Calvo-González represents an important step forward. The authors have assembled a panel database that includes disaggregated spending records for 1,688 Peruvian municipalities over three years. An important concern in Peru is that municipalities lack the capacity to spend the money allocated by the central government. In 2009, for example, municipalities spent between 63 and 97 percent of their allocated

budget. Drawing on their extensive database, the authors estimate the effects of key factors that constrain the ability of municipalities to spend the funds allocated to them. Following the previous literature, the authors group the constraints into four broad categories: size of the allocated budget, local capacity, local needs, and political economy.

The results confirm some of the qualitative findings of the previous literature. The size of the allocated budget has a significant negative effect on municipalities' spending ability. Those with a larger budget generally spend a smaller share, and this is particularly true for capital expenditures. Local capacity has a significant positive effect on spending ability: more populous and more educated municipalities execute a larger share of their budget. This is consistent with the concern that municipal managers often lack the necessary personnel and technical ability. Indeed, the authors' results show that municipalities with a larger share of white-collar workers are able to spend more of their budget.

Given such findings, the effect of local needs on spending may be somewhat surprising: all else equal, municipalities with higher poverty rates spend a larger share of their budget. A plausible explanation for this finding is that areas with greater poverty have greater investment requirements: problems are more apparent, and solutions easier to identify.

The final group of constraints relates to political economy. Results show that popular support for elected officials matters: municipalities where the mayor is elected with a larger share of the vote spend a larger share of their budget. Mayors who are reelected are also better able to execute the budget, but only at the beginning of their term in office.

A key purpose of this research is

to produce quantitative estimates of the relative importance of these different factors. The study focuses on the results related to capital expenditures because this is the budget category with the lowest execution rates. By

By far the most important factor determining municipal spending ability is the size of the allocated budget: a bigger budget means a greater share left unspent

far the most important factor determining spending ability is the size of the allocated budget: a bigger budget means a greater share left unspent. Clearly, local governments have found it difficult to absorb the large resources flowing from the center. This is confirmed by looking at the size of capital expenditure projects: municipalities facing more ambitious

projects spend less of their budget. Of the other factors, population size appears to be the most important. A larger population means a larger and more diverse set of projects and a larger pool of individuals to implement them—and therefore a larger share of the budget spent.

The authors' findings suggest that effective fiscal decentralization can be achieved if budget allocations are matched not only with local needs but also with local capacity. But in the medium term local capacity itself can be the target of purposeful economic policy. Improving the incentives for local leaders to hire better managers and administrators, facilitating coordination between small municipalities for large common projects, and clarifying the different mandates of the different levels of government are just a few of the elements of much-needed second-generation decentralization reforms.

Norman Loayza, Jamele Rigolini, and Oscar Calvo-González. 2011. “More Than You Can Handle: Decentralization and Spending Ability of Peruvian Municipalities.” Policy Research Working Paper 5763, World Bank, Washington, DC.

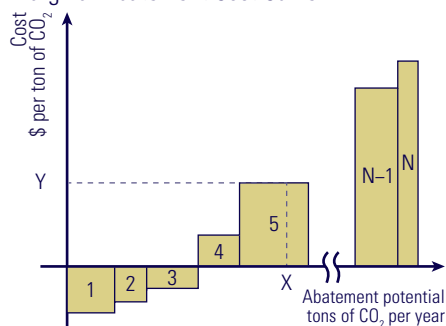
When Starting with the Most Expensive Mitigation Options Makes Sense

Abatement activities with high potential but great inertia need to be started early, even if cheaper options exist

To design the best policies to mitigate climate change, decision makers need information about the options for reducing greenhouse gas emissions. Such information has been provided in many ways, including through bottom-up, expert-based marginal abatement cost (MAC) curves. These curves represent information on abatement costs and potentials for a set of mitigation activities. Where MAC curves have been developed, they have proved useful in communicating about abatement options and potentials.

MAC curves rank potential mitigation options from the least to the most expensive and therefore look like merit-order curves. This suggests that they are meant to be used as conventional supply curves. If they were, an abatement activity should be implemented when the price of carbon is higher than or equal to the reported cost of its abatement. In other words, a cost-minimizing strategy would exhaust the cheapest available options before turning to progressively more expensive options as the carbon price rises and until the targeted abatement level is reached (figure 1).

Figure 1. A Bottom-Up, Expert-Based Marginal Abatement Cost Curve



Note: The classic interpretation is that the optimal strategy for achieving abatement X is to implement activities 1–5: Y would be the marginal abatement cost, and imposing this carbon price on the entire economy would lead to the optimal dispatch of the reduction burden (activities 1–3 are options such as building retrofitting that have a negative cost because of energy savings). The paper challenges this interpretation.

But MAC curves are not merit-order curves: they report on activities that could take decades to implement, such as retrofitting buildings or switching from coal to gas in the power sector. Because of this inertia, the choice of mitigation options and the implementation schedule suggested by a naive interpretation of MAC curves can be suboptimal.

In a new paper Vogt-Schilb and Hallegatte investigate the optimal timing for abatement of greenhouse gas emissions (choice across time) along with the optimal dispatch of the reduction burden (choice across abatement activities). To do so, they extend a MAC curve with information on inertia in the form of a cost in time for each activity. Achieving a given amount of abatement through a given activity requires spending both money and time on implementation. These extended MAC curves make it possible to distinguish available abatement activities not only by their costs and potentials but also by the time it takes to implement them. The authors then look for the least-cost strategy for achieving different climate objectives.

With an objective expressed in terms of cumulative emissions over a long period—a good proxy for climate change—it is preferable to start by implementing the cheapest options. But it makes sense to implement the more expensive ones at the same time, particularly before exhausting all the potential of the cheapest options. Reaching ambitious objectives requires implementing abatement options that are slow to act. Time is not only money; the start date for implementation is defined by time constraints as well as by the cost of options.

With objectives expressed in terms of aggregate abatement at one point in time, such as the –20 percent in 2020 of the European Union, the order can even be reversed: it can be preferable to start with the most expensive options if their potential is higher and their inertia is great. This optimal schedule cannot be enforced with a

uniform carbon price across sectors unless economic actors exhibit perfect foresight and the long-term carbon price signal is perfectly credible.

Moreover, short-term emission targets can dangerously mask longer-term targets. In the European Union the best way to reduce emissions by 20 percent by 2020 depends on whether this is the ultimate objective or only one milestone in a trajectory toward a 75 percent reduction in 2050. With an ambitious long-term objective, the short-term target needs to be achieved by implementing the options with the largest potential and the greatest inertia. A mitigation strategy based on a naive interpretation of a MAC curve would start with the cheapest options, possibly locking the economy into a carbon-intensive pathway and making the longer-term target unreachable.

The authors' results provide some insights into carbon pricing as well as a framework for analyzing overlapping mitigation policies. A uniform carbon price across sectors cannot trigger the optimal dispatch of activities unless its long-term evolution is perfectly credible and predictable and economic actors have perfect foresight. In a realistic setting—with inertia, credibility issues for public policy over the long term, and imperfect foresight—it makes sense to use complementary sector-specific policies. The cost-effectiveness of such overlapping policies—such as Europe's 20 percent renewable energy target or fuel economy standards for newly sold cars—should be assessed in a dynamic framework that takes inertia into account.

Adrien Vogt-Schilb and Stéphane Hallegatte. 2011. "When Starting with the Most Expensive Option Makes Sense: Use and Misuse of Marginal Abatement Cost Curves." Policy Research Working Paper 5803, World Bank, Washington, DC.

Evaluating the Impact of Trade Interventions

Building impact evaluation into trade projects could lead to better policy design and a more credible case for “aid for trade”

The focus of trade policy has shifted in recent years from economy-wide reductions in tariffs and trade restrictions toward targeted interventions aimed at reducing trade costs and promoting exports. At the same time the international development community has galvanized around “aid for trade” as a way to help low-income countries integrate with the global economy. Significant national resources and international assistance are being devoted to trade facilitation and export promotion.

The environment in which trade-related assistance is provided has also changed. In times of fiscal austerity, taxpayers increasingly question the justification for large aid flows and demand results and accountability. The development community has struggled to respond to these demands because there is surprisingly little evidence about what works and what does not in trade and industrial policies. A review of 85 recent World Bank projects relating to trade revealed that only 5 included rigorous evaluation components. And there is almost no micro-economic evidence to guide specific trade interventions.

In fields such as health and education, impact evaluation methods have proved to be powerful tools to help guide policy choices and minimize the cost of interventions. The usual excuse for not using these methods in assessing the effectiveness of trade assistance is that the “clinical” nature of the treatment needed for a proper definition of treatment and control groups is absent from trade policy. A new volume edited by Cadot, Fernandes, Gourdon, and Mattoo intends to show that *trade exceptionalism*—the notion that trade-related interventions are inherently not amenable to impact evaluation—is limited to traditional trade policies. More recent, focused

trade-related interventions can be rigorously evaluated as long as one is not wedded to a particular methodology such as randomized control trials.

The volume presents examples of impact evaluations of trade-related assistance using a range of methods (experimental and nonexperimental), highlighting the challenges arising in a trade context and the lessons being learned. These methods, already applied in some recent studies, have produced interesting and unexpected results. Consider examples featured in three chapters of the volume.

In an ex post evaluation of export promotion programs in six Latin American countries, using rich firm-level data sets, Christian Volpe shows that these programs were effective in facilitating export expansion primarily along the extensive margin (through an increase in the number of products exported or export markets served) rather than the intensive margin (through an increase in exports of existing products to existing markets). He also shows that programs benefited small, relatively inexperienced firms more than larger, established exporters and that bundled services providing support to firms throughout the export development process were more effective than isolated actions.

Julien Gourdon, Jean-Michel Marchat, Siddharth Sharma, and Tara Vishwanath use similar ex post evaluation methods to assess the impact of a World Bank–financed export promotion program in Tunisia (FAMEX) that provided a mix of counseling and matching grants to new exporters. Their findings suggest that export promotion has a large significant effect on overall export growth: 39 percent higher average annual growth for program beneficiaries than for the control group over a four-year period. The effect of the program on the extensive margin of exports—in terms of products and destinations—is more subdued: about 5 percent higher growth for beneficiaries that is significant only for destinations. The authors also find a significant increase in employment

growth: 10 percent more for program beneficiaries than for control firms. The effect on export growth is stronger for firms that were initially only marginal exporters. Interestingly, the effect of export promotion is significantly larger for services firms than for manufacturing firms.

Mohini Datt and Dean Yang analyze a natural experiment in which the Philippine government suddenly reduced the minimum value threshold under which shipments were exempt from preshipment inspection, closing a loophole that had encouraged importers to slice shipments so as to escape inspection. They show that the reform failed to curb underinvoicing and thus to raise duty collection because importers switched to an alternative loophole: the use of an export processing zone. The Philippine government ultimately was no better off and, because this alternative loophole involved high fixed costs (setting up facilities in the zone), importers were worse off. The authors also discuss the effects of a reform in Colombia where the government sought to remedy the undervaluation of certain imports by mandating preshipment inspection for a subset of products. This left open the loophole of misclassifying those products as similar ones that did not require such inspection. Both cases illustrate the importance of careful, incentive-compatible design of reform.

The volume argues that systematically building impact evaluation into trade projects could lead to better policy design and a more credible case for “aid for trade.”

Olivier Cadot, Ana Margarida Fernandes, Julien Gourdon, and Aaditya Mattoo, eds. 2011. *Where to Spend the Next Million? Applying Impact Evaluation to Trade Assistance*. London: Centre for Economic Policy Research.

The Influence of Society on Preferences

Changes in preferences in response to changes in social institutions may be central to economic and societal change

Nearly all work in economics is built on the theory that individual preferences are fixed, stable, and the same for all people. But a new paper by Fehr and Hoff argues that the opposition in economics to explaining changes in behavior in terms of changes in preferences is ill founded. Recent progress in economic methodology makes it possible to investigate influences from policies and institutions on preferences that drive individual action.

Among the sources of influence on preferences are “anchors” and “frames”—observables that are irrelevant in the rational assessment of alternatives but nonetheless affect behavior by triggering a particular way of thinking about a choice, for example, by evoking a self-concept, norm, or worldview. Extensive evidence now exists that slight differences in situations can cue different mental frames and lead to the expression of different preferences. From the society in which we live, we have learned a variety of roles that can be situationally evoked, and different contexts can evoke different roles by acting as a “frame switch.” Chinese Americans are more cooperative, more patient, and less individualistic when the Asian aspect of their identity is primed in experiments. In India, where segregation between high-status and low-status castes is a marker of civic privileges and disabilities, an experiment finds that high-caste junior high school students work less hard when they are segregated from low-caste students.

While framing effects make preferences dependent on particular situational cues, other factors—for example, wars, repression, and legal changes—can have long-term effects on preferences that persist after the learning stimulus is removed.

- Recent experiments in war zones

suggest that war increases altruism within groups, which may make people more likely to contribute to collective action against the enemy and thus perpetuate the conflict between groups.

- In India the historical legacy of the denial of basic social and economic rights to Untouchables may be to diminish the repressed group’s willingness to punish violations of cooperation norms and therefore its ability to sustain collective action, which perpetuates the vulnerability and exploitability of the group.

- Experimental findings suggest that minimum wage laws create an entitlement effect: subjects who have once experienced a minimum wage, which is no longer in force, are less willing than before to work for a low wage.

- Theoretical and empirical findings suggest that the welfare state diminishes the incentives of parents to instill preferences for hard work in their children.

Moreover, differences in the remote past can shape cultures in ways that lead to large differences across groups in attitudes toward government policy, such as the demand for social insurance. Switzerland is well suited to an analysis of such differences because the country has two language groups—German and “Latin” (French, Italian, and Romansh)—that occupy different regions of Switzerland, have different histories, but face similar laws and economic conditions. The two groups are at opposite ends of a scale defined by the average national responses in a worldwide survey to the question whether government should do more to redistribute income. Analysis of votes in 30 years of national referenda finds large, systematic differences in the demand for social insurance, controlling for many other variables.

An anomaly that has attracted a great deal of attention is the effect of default options on decisions. Default options appear to have large consequences for choices that people make on retirement savings, insurance plans, and organ donation. For example, in

Austria consent to being an organ donor is the default option, so that not consenting requires an active decision to opt out. Here the effective consent rate is 99.98 percent. Just over the border in Germany, where being an organ donor requires opting out of the default option, the share of the population who are organ donors is 12 percent. A recent experiment finds that the power of the default option arises because, contrary to economists’ standard assumption, many individuals construct their preferences only at the time of making an active decision. These individuals favor the default option because it avoids the cost of making an active decision.

Within the possible set of assumptions about preferences that can be used in explaining economic outcomes, the standard assumption that individual preferences are not susceptible to social influences is but a special and not very plausible example. There is growing evidence that preferences change in response to changes in social institutions, and that these changes in preferences may be central to the process of economic and societal change—for example, in the degree and persistence of group inequality, the tenacity of hostilities between warring groups, and the pressures on the welfare state.

(continued from page 1)

reserves account for an important part of the reduction in COD, but there are also significant declines in equity, bank flows, and direct investments.

The findings have important implications for the sources of fluctuations in economies open to capital flows. A growing literature on international macro-finance emphasizes productivity shocks as the main source of fluctuations in such economies. While it is possible to construct models in which productivity shocks lead to a positive correlation between CIF and COD, this does not seem to be the most natural effect of productivity shocks. In particular, if a negative productivity shock reduces the incentives for domestic agents to invest at home, it would seem most natural that foreigners would also have fewer incentives to invest in the country.

The evidence presented in the paper suggests that other factors besides productivity shocks must be important determinants of gross capital flows. In addition, and unlike productivity shocks, these factors must affect foreign and domestic agents asymmetrically. One set of models introduces asymmetric information between domestic and foreign agents. Others introduce asymmetry in asset returns depending on whether the asset is held by foreign or domestic agents. For example, domestic agents might be less likely to be defaulted on than

foreign agents. More generally, all models in which crises are associated with a relative deterioration of foreigners' property rights are likely to predict retrenchment (a reduction in both CIF and COD) during crises.

Another potential asymmetry is in access to liquidity during crises, with domestic agents probably becoming more financially constrained than foreigners. This asymmetry is likely to lead to fire sales of domestic firms to foreigners. The authors find mixed results in this respect. While there is some evidence that inflows of foreign direct investment increase in high-income countries during severe crises, this does not seem to be the case in developing countries. Overall, fire sales do not appear to be an important determinant of capital flows in the typical developing country crisis.

While it is difficult to reject general classes of models, the stylized facts provided in the paper should help in judging the relevance of existing and future theories of international capital flows.

Fernando Broner, Tatiana Didier, Aitor Erce, and Sergio L. Schmukler. 2011. "Gross Capital Flows: Dynamics and Crises." *Policy Research Working Paper 5768*, World Bank, Washington, DC.

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