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Financial Crises, Credit Booms, and External Imbalances

There is remarkably little empirical evidence on the relative importance of global imbalances and other factors in credit boom-bust episodes in advanced economies. In **Financial Crises, Credit Booms, and External Imbalances: 140 Years of Lessons** (NBER Working Paper No. 16567), authors **Òscar Jordà, Moritz Schularick, and Alan Taylor** fill that gap as they analyze whether external imbalances, that is current account surpluses or deficits, increase the risk of financial crises.

Using a long-run cross-country dataset of 14 developed countries over 140 years (1870–2008), the authors draw interesting observations from the macroeconomic dynamics before and after crises, being careful to differentiate between global and national crises. The pre-crisis dynamics indicate that although both credit and money growth are strongly elevated before both types of financial crises, the large international crises are different from national crises in that they combine strong credit growth with an environment of low real interest rates (relative to real growth) and tame inflation. Crises also are typically preceded by somewhat larger current account deficits relative to the country's own history, but there is little evidence that big international crises can be identified by abnormal current account trends. Therefore, the initial evidence suggests that while both domestic credit and external imbalances could play a role in financial crises, the role of external imbalances may be secondary.

> "Credit growth emerges as the single best predictor of financial instability."

The authors further observe that downturns associated with financial crises lead to deeper recessions and to stronger subsequent turnarounds in imbalances than normal business cycle downturns. Indeed, deflationary tendencies are considerably more pronounced in recessions caused by a crisis than in normal recessions. Crisis recessions also display a much stronger negative impact on loan growth.

The researchers explore whether external imbalances can help to predict the occurrence of financial instability in advanced economies. They conclude that credit growth emerges as the single best predictor of financial instability. They find only limited evidence that external imbalances have played a major role in generating financial crises in the past 140 years. However, the correlation between lending booms and current account imbalances has grown much tighter in recent decades, suggesting that high rates of credit growth coupled with widening imbalances can pose important stability risks.

— Claire Brunel

The Decline of "Piece Rate" Compensation in Manufacturing

The simplest form of pay-for-performance — the piece rate — has been in decline in manufacturing in recent decades. In **Analyzing Compensation Methods in Manufacturing: Piece Rates, Time Rates, or Gain-Sharing?** (NBER Working Paper No. 16540), authors **Susan Helper, Morris Kleiner**, and **Yingchun Wang** show that this change has come about with the adoption of modern manufacturing systems, in which firms produce a greater variety of products to a more demanding quality and delivery standard.

In years past, when it was common for workers to produce only one product, the owner of the firm would often monitor output and compensate workers using "piece rates." Under this form of compensation, workers' pay is based simply on the quantity and quality of their output. In modern manufacturing, though, team work, planning, decision making, and problem solving also may be required of workers, and all of these are harder to observe than the output of a single good. Therefore, managers may choose other types of compensation systems, such as time rates and gain sharing (where part of compensation is linked to quality-adjusted productivity). These systems, which may involve some variable pay, can in some settings lead to higher profitability and to greater satisfaction for the workforce.

> "In modern manufacturing … team work, planning, decision making, and problem solving … may be required of workers, and all of these are harder to observe than the output of a single good."

In this study, the authors develop a theory of the type of compensation system that is appropriate for modern kinds of production, in which there is a high return to "multi-tasking," the same workers perform both easy-to-observe and hard-to-observe tasks, and just-in-time production entails a high cost of holding inventory. They also provide empirical evidence from six establishments within two firms that changed from a piece-rate method of pay to either time rates or gain sharing. Based on repeated visits, focus groups, interviews, and analysis of employee questionnaires and company performance, the authors are able to examine changes in compensation within both an auto parts company and a shoe manufacturer over a period of years. Their analyses suggest that moving away from piece-rate methods of pay for performance may enhance profits in both of the cases they examine. In addition, for production workers, changes away from piece rates enhance the new workers' attitudes toward teamwork and collaboration. These results suggest one reason why firms may have chosen to largely abandon piece-rate methods of pay in favor of time rates or gain sharing over the past 50 years.

This analysis shows the importance of distinguishing types of incentive pay: the authors find that modern manufacturing is consistent with either group incentive pay (such as gain sharing) or no incentives (such as hourly pay), but is not consistent with individual incentive pay (piece rates). They suggest that these results may hold for any form of production (not just for manufacturing) where it is productive to have the same employees perform both easy- and hard-to-observe tasks.

— Lester Picker

The Multiplier for Federal Spending During the New Deal

The 2009 federal stimulus package has generated new interest in measuring the effect of government spending in raising overall economic activity. This is sometimes labeled the "output multiplier." It is a measure of the rise in income associated with an additional dollar of government grants. A multiplier of 1.5 implies that an additional dollar of grants raises income by the dollar of grants plus 50 cents; a multiplier of 0.5 implies that an added dollar or grants increases income by only 50 cents and thus crowds out some economic activity. In **In Search of the Multiplier for Federal Spending in the States during the New Deal** (NBER Working Paper No. 16561), **Price Fishback** and **Valentina Kachanovskaya** examine the impact of federal stimulus programs during the Great Depression on a state-by-state basis. They estimate that for personal income, which includes transfer payments, the multiplier ranges from 0.91 for a combination of government grants and loans to 1.39 when only grants are considered. The personal income multiplier for public works and relief was around 1.67. The multiplier for farm payments to take land out of production was -0.57, which implies that the program actually reduced personal income.

The multiplier for wages and salaries was substantially less than one, as was the multiplier for retail sales. Furthermore, the researchers find that the impact of the federal spending on employment was negligible and may have been negative. These results may help to explain why measures of income have recovered more rapidly than measures of employment in both the 1930s and in the current era.

To estimate the Depression-era multiplier, Fishback and Kachanovskaya create a dataset with annual information on the 48 contiguous states from 1930 through 1940 for federal government grants, loans, and tax collections, and a variety of measures of economic activity. The data show that real federal tax revenues per capita in 1935 ranged from $3 in Mississippi to $321 in Delaware, while federal grant spending per capita ranged from $46 in Rhode Island to $506 in Nevada. The authors choose to study this period because unemployment rates were between 9.5 and 25 percent throughout those years. Given the large number of unemployed resources at the time, it seems that fiscal stimulus would have been unlikely to crowd out private activity, so the multiplier would be expected to be quite large.

> "The output multiplier associated with federal spending is likely to be lower today than during the New Deal period."

The authors conclude that, given the differences in unemployment levels between the 1930s and today, the output multiplier associated with federal spending is likely to be lower today than during the New Deal period. Their rough estimate is that the current multiplier would be one or less for personal income, which includes transfer payments, and smaller for other measures of income.

— Matt Nesvisky

The Effect of Corporate Governance on Shareholder Value

In **The Vote is Cast: the Effect of Corporate Governance on Shareholder Value** (NBER Working Paper No. 16574), authors **Vicente Cuñat, Mireia Gine**, and **Maria Guadalupe** present evidence on how corporate governance provisions affect the firm's market value and its long-term performance. They quantify the effect of a governance vote by studying the outcomes of votes on governance proposals in shareholder meetings. Because proposals that fall around the majority vote threshold are expected to be the most uncertain, so that investors could not have predicted perfectly whether they would pass, these proposals enable the authors to observe a market price reaction to the passage or failure of such proposals.

They find that, on average, the market reacts to the passage of a governance-related shareholder proposal with positive abnormal returns of around 1.3 percent on the day of the vote. This reflects both an expected value that takes account of the probability that the proposal itself will be implemented and the dynamic effect of passing one proposal on the probability that more such proposals will be submitted and implemented in the future. The actual implied increase in market value of implementing a single proposal is about 2.8 percent. The effect on market value is more pronounced among firms with concentrated ownership, high pre-existing anti-takeover provisions, and high R and D expenditures.

"Repealing anti-takeover provisions ... leads to lower investments [and] fewer acquisitions."

Firm behavior also changes with the new governance structure. Repealing anti-takeover provisions, for example, leads to lower investments, fewer acquisitions, and an improvement in long-term performance after two or three years. The effect on the return on equity, however, is modest.

These results indicate that the market rewards changes in the internal corporate governance in targeted firms. This suggests that there are costs to the misalignment of incentives between owners and managers in modern corporations. These results also imply that shareholder activism may create value, and that improving democracy within firms might be value increasing

— Lester Picker

Mauritius: African Success Story

When it comes to success in the African region, few countries can top Mauritius. Despite its remote location, small size, and ethnic divisions, the Indian Ocean country has prospered compared with most other African nations. That this 720-square-mile island is an African success story is borne out in various rankings: first among sub-Saharan African nations in the Rule of Law index from World Governance Indicators; first in the Index of African Governance; and the highest ranking African nation in the United Nations' Human Development Index (and No. 81 out of 182 countries worldwide). Between 1970 and 2010, its gross domestic product averaged 5.4 percent annual growth, compared with the African average of about 1 percent.

"The island nation was able to adapt [to external shocks] with business-friendly policies that allowed its economy to continue to diversify and thrive."

In **Mauritius: African Success Story** (NBER Working Paper No. 16569), author **Jeffrey Frankel** examines the economic history of the island and pinpoints a few reasons behind its accomplishments. Frankel points out that after Mauritius, the next two African nations with the highest governance rankings, intriguingly, are also small island nations: the Seychelles and Cape Verde. That's unusual, according to development theory, because small nations typically don't have the size to gain economies of scale. These islands are also in the tropics, another attribute that is often thought to be a barrier to progress. Frankel offers a possible explanation, rooted in immigration.

"Any country can in principle adopt effective institutions and strong policies at any time.... In the case of Mauritius, the deep underlying origins include a cosmopolitan population with an unusual combination of ethnicities: Franco-

Mauritians and Creoles who were willing at the time of independence to trade off their past domination of political power for guarantees under the new system, Indians who were willing to take the other side of the bargain, and Chinese who had links to their country of origin. And, as with the Seychelles and Cape Verde, everyone in Mauritius came from somewhere else," Frankel writes.

The history of Mauritius is one of globalization, with ups as well as downs: The Dutch stripped it of its valuable trees in the early seventeenth century and killed off the dodo. The French settlers imported African slave labor to work on their sugar plantations. Britain took over in 1814, and slavery was abolished two decades later. This was an important turning point: without slaves, the sugar plantations had to bring in some 500,000 indentured servants from India. An 1886 constitution allowed some Creoles along with Franco-Mauritians to become national representatives, and a 1948 constitution gave all literate adults the right to vote.

When Mauritius became independent in 1968, external observers predicted that the country would experience poor economic performance because of its high population density, reliance on a single crop, and ethnic divisions. But some key decisions helped to set the country on the road to progress. In one tradeoff, the leader of the nation's majority of Indian descendants renounced nationalization and opted for property rights instead, effectively allowing them to gain political power but letting the Franco-Mauritians keep their plantation wealth.

Under a series of coalition governments, the nation moved from agriculture to manufacturing. It implemented trade policies that boosted exports: an Export Processing Zone, smart diplomacy regarding export preferences, and a competitive exchange rate. "The reforms were implemented over three successive governments; a number of observers have highlighted what this says about the stability of the political system and its ability to do what is best for the country even while simultaneously squabbling furiously over personal and factional politics," Frankel writes. When outside shocks hit — the oil price increases, loss of trade preferences, and overwhelming competition from Chinese textiles — the island nation was able to adapt with business-friendly policies that allowed its economy to continue to diversify and thrive.

The island's accomplishments suggest at least three possible lessons for the rest of Africa. First, trade is crucial to growth. Second, ethnic differences can be accommodated by a well-designed parliamentary political system. Third, democracies can reform economic systems in ways that foster economic growth.

Still, Frankel writes, some other ingredient is missing, and it may have to do with immigration. When immigrants in other countries prosper, perhaps because they are self-selected for initiative, the natives often resent them, blocking progress. (Fiji is an example.) But Mauritius, like the Seychelles and Cape Verde, was uninhabited three centuries ago. Thus everyone is an immigrant. "If everyone came from somewhere else, nobody can claim special privileges," Frankel writes. But "the ideal of an identity-blind meritocracy, however desirable in principle, is not essential. The important thing is for everyone to feel included."

— Laurent Belsie

Long-Term Effects of School Desegregation and School Quality

Court-ordered desegregation of U.S. schools began in the 1960s and continued through the 1980s. As a result, school segregation decreased dramatically from 1968 to 1972, particularly in the Southeastern states. In **Long-run Impacts of School Desegregation and School Quality on Adult Attainments** (NBER Working Paper No. 16664), author **Rucker Johnson** concludes that earlier studies substantially underestimated both the returns to education and the benefits of school desegregation. He finds that although court-ordered school desegregation did not affect outcomes for whites, it significantly improved the adult attainment of blacks born between 1950 and 1975.

Rucker analyzes data on over 4000 children born between 1950 and 1975. They were assigned to schools based on 1970 school district lines and on the census block in which they reportedly grew up. He also has data on the average per-pupil spending for school districts as a whole, as well as the dates of court rulings, school data, segregation indices, and measures of county characteristics that were provided to him by the Office of Civil Rights, the 1962–82 Census of Governments, the National Center for Education Statistics, and the American Communities Project at Brown University.

The average high school graduation rates for blacks and whites in Rucker's sample were 0.73 and 0.88, respectively. On average, children were in desegregated schools for five years, and each additional year that a black child was exposed to education in a desegregated school increased the probability of graduating by between 1.3 and 2.9 percent. For black men, spending time in desegregated schools as a child also reduced by 14.7 percent the probability of spending time in jail by age thirty.

"Each additional year of exposure to desegregated schools increased black men's annual earnings by roughly 5 percent."

Rucker estimates that each additional year of exposure to desegregated schools increased black men's annual earnings by roughly 5 percent, increased their wages by 2.9 percent, and led to an annual work effort that was 39 hours higher. At the same time, for these black male adults the probability of poverty decreased by between 1.6 and 1.9 percentage points. Overall, five years spent in desegregated schools yielded an estimated 25 percent increase in annual earnings and increased annual work effort of 195 hours. Desegregation also resulted in significant long-run improvements in blacks' adult health, as measured by self-assessed general health status; the effect of a five-year exposure to school desegregation is equivalent to being seven years younger.

By the fourth year after a desegregation order, average annual per-pupil spending in the affected districts had increased by an average of $1,000 from a 1967 baseline of $2,738. Rucker notes that "there was suggestive evidence that reductions in school segregation levels that were not accompanied by significant changes in school resources did not have appreciable long-run impacts on blacks' adult attainments."

— Linda Gorman

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