



Moving from a Poor Economy to a Rich One: The Contradictory Roles of Technology and Job Tasks

CFM-DP2020-10

Eran Yashiv

Centre for Economic Policy Research, Centre For Macroeconomics and Tel Aviv University

The phenomenon of workers moving from a poor to a rich economy is a very prevalent one. It may be an internal migration or commuting move or migration across countries. It is a salient issue, with such migration flows very high on the political agenda in many rich countries. When a worker moves to an economy richer than the home economy, what is gained by the move? This question is evidently important for the moving workers themselves, as well as for evaluating both economic gains and political implications. This question is at the focus of the paper.

There is a view whereby such gains are very large. For example, Kennan (2013) estimates a gain in net income of 125% within a model of migrants from poor countries to rich ones. It is not straightforward, however, to answer the question of the gain from the move to a rich country. The difficulty is related to the need to disentangle the effects of income differences on the movers' decision from many other determinants of such mobility. The set of determinants includes geographical distance, sociodemographic factors including family linkages and social networks, credit constraints, welfare benefits, insurance motives, psychological issues, and more. Many estimates in the literature are potentially biased due to substantial mis-specification of the model, when omitting relevant determinants.

This paper studies a unique case that allows to isolate the pure effects of income differences. A key rationale underlying the analysis is akin to the one explored and debated in the development accounting literature – the distinction between factors which are external to the worker, such as technology, capital, and institutions, and factors embodied in the worker, such as skills and abilities. Hence, when estimating wage equations so as to infer the gains from a poor to rich economy move, it explicitly address the question of what workers newly experience in the richer economy (say, higher technology), what is taken from the poorer economy (human capital), and their choices in moving (self-selection). Importantly, it takes into account the fact that movers and stayers are typically constrained in terms of the jobs offered and the skills required.

The unique data set used consists of repeated cross-sections of a Labor Force Survey of Palestinian workers who were working in Israel. The survey sampled both movers and stayers within a unified setting. During most of the 1980s a sizeable fraction of the male labor force from these areas worked in Israel, a far richer economy. The features of this labor market were such that the other cited determinants of mobility played no role. There thus existed a special situation, whereby a worker could decide on work in a richer economy and place himself there by a daily or weekly





commute. Without the confounding factors, the decision to work in the richer economy can be estimated without bias. Indeed "moving" was minimal and the main feature of the data to be exploited here is that workers belonging to a poor economy worked in a rich one.

It should be emphasized that there are two intertwined issues here: one is the estimation of effects of factors external to the worker (technology, capital) as distinct from factors embodied in the workers (skills); the second is that such estimates require appropriate data that eschew the bias inherent in confounding determinants of mobility.

I use a self-selection model catering for two empirically-important sets of features. First, it encompasses notable facts concerning rich and poor countries income differences, as characterized by recent papers in the development accounting literature. The latter suggests sizeable rich-poor countries income differences exist, while debating the relative weights of their various constituents. Thus, the paper connects with work that breaks down the cross-country differences into the share of technology and capital and the share of human capital. The distinction between the two is key.

Second, it explicitly recognizes that workers face job tasks requirements and particular rewards for their skills in performing these tasks. Here this paper connects with Autor and Handel (2013), who estimate a similar selfselection model with U.S. job and wage data. They note the issue of skill bundling within tasks. The bundling in the current paper is in terms of location-task-skills. Workers are demanded for a particular task, which requires a bundle of skills and rewards it in a specific way in a particular location.

I use two alternative estimation methodologies to examine wage regressions of movers and stayers. I analyze the findings across the two economies both in terms of the mean wage differential and in terms of the distributions involved.

My findings offer a new take on the gains to movers, as the pure effects of income differences in the choice to move to a rich economy are made up of diverse elements, operating in opposition. Productivity differences in favor of the richer economy, due to differences in TFP and in the stock and quality of physical capital, are sizeable and operate to raise wages. However, lower returns to human capital and lower stocks of human capital for movers, operate to lower wages. The latter is due to negative selection on observables of movers, who are being offered low-skill tasks in the rich economy. The latter effect offsets to large extent the former gain, sometimes overturning it. Self-selection on unobservables, which is positive, turns out to play a far smaller quantitative role.

These findings are consistent with the recent development accounting literature in terms of the pattern of income differences across countries, and reveal large gross differences. But they do not confirm the claim that net gains of such a move are large, due to the afore-mentioned offset. These findings also imply that the self-selection of movers in terms of skills is not the unique major element





here. The productivity differences involved are no less important. Knowing the patterns of self-selection does not suffice to understand the poor to rich move.

The contribution of this paper consists of the following: the literature often looks at the move from poor to rich economies (i) without disentangling the income differences motive from a plethora of other motives; and (ii) anticipates a big productivity gain due to the rich economy having higher TFP and capital. This paper shows that with respect to point (i), there is potential for substantial misspecification and bias, while the unique data set used here eschews such bias. With respect to point (ii), the paper emphasizes the idea that tasks are tied to locations, and so workers choose a location-wage-task 'pack' that determines rewards to the skills bundled in the task. The bundling constrains the human capital returns for movers and generates a big offset to the productivity gain.

The analysis of this paper is relevant for many cases of foreign minorities in advanced economies. Workers belonging to such minorities are demanded to perform low-skill tasks, as is the case here. In a review of migration, productivity, and the labor market, Peri (2016) emphasizes, the importance of recognizing the role of tasks performed by migrants, especially manual tasks. The latter feature is particularly important for the non-college educated. He discusses the fact that employment in manual, low skill occupations is a salient feature among them, as it is in the case of Palestinian men discussed here.