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# Structural Change, Economic Policy, and Development

This study is about the growth and development performance of non-industrialized regions in the latter part of the 20<sup>th</sup> century. We find that sustained per capita GDP growth was accompanied by structural change in terms of output and labor share shifts as well as productivity growth with (in some cases) strong reallocation effects due to movements of labor from low to high productivity sectors. Regions that did not enjoy per capita growth showed little structural evolution apart from a rising employment/population ratio in service sectors. On the demand side, we examine shifts in net borrowing by the private sector, government, and rest of the world. Mutually offsetting co-movements of government and foreign net borrowing occurred sporadically at most. In other words, the widely accepted “twin deficits” view of macro adjustment does not seem to apply. Macroeconomic flexibility, on the other hand, may be very important. The policy background for these findings is sketched out along with a critique of justifications provided by the World Bank. Proposals are advanced for policy changes.

A major economic policy shift has occurred worldwide since the 1970s and 1980s when, under the tutelage of World Bank and International Monetary Fund, most developing countries moved to liberalize their external current and capital accounts along with domestic labor and financial markets. They also privatized public enterprises, de-emphasized industrial policy interventions, and allowed a greater private sector role in general. Fiscal austerity figured in many

programs sponsored by the Bretton Woods Institutions.

At best, these policies had mixed results in either reversing a slowdown in growth that many countries encountered in the last quarter of the 20<sup>th</sup> century (details below) or in helping them break away from their poverty and low level development traps (Taylor, 2001, 2006; Vos et.al. 2003). More than a quarter of a century has passed since the first versions of IMF and World Bank macro

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reforms became the conventional wisdom. Data are now available for a long enough time to enable economists to sort the policy implications out.

This paper takes up the task, by examining trends in macroeconomic indicators and structural change that inform patterns of development across countries over the last 20 or 30 years. The policy background is then brought in (with emphasis on ideas – and propaganda — emanating from the Bretton Woods institutions). Suggestions are offered about other approaches to policy that may help generate more sustained and equitable development than has been the case in the recent past.

We begin by investigating economic evolution for the period 1970-2003, studying several indicators to see how they relate to changes (or lack thereof) in per capita GDP. To keep the discussion within bounds, the data are organized in terms of 12 regional groups including 57 developing and transition countries: rapidly growing East Asian economies (or the “Tigers”), Southeast Asia, China, South Asia, semi-industrialized “Latin America” (including South Africa and Turkey with economic structures similar to their counterparts in the Western Hemisphere), the Andean countries, Central America and the Caribbean, Eastern Europe, Russia and Ukraine representing the former USSR, “representative” and “other” countries in sub-Saharan Africa<sup>1</sup>, and the Middle East. Nations in each group are listed in the Appendix.

To set the discussion, Figures 1 through 3 show levels of per capita GDP by region (log scale) in terms of constant 1990 US dollars<sup>2</sup>.

We identify three cohorts of regions and countries that had similar patterns of growth:

There was *sustained growth* in the Tigers, China, Southeast Asia, and South Asia (dominated by India) as shown in Figure 1. Relative to the other regions, South Asia had less robust expansion and Southeast Asia did not bounce back as strongly from the 1997 crisis as did the Tigers.

Figure 2 illustrates *late recovery* (often not very strong) in Eastern Europe, Russia/Ukraine, semi-industrialized Latin America, Central America and Caribbean, and representative Africa. Eastern Europe is in an ambiguous situation. Over the period 1970-2003 the region grew slightly faster in per capita terms than South Asia (2.7% vs. 2.6% per year) but because of the transition shock around 1990 it seemed more appropriate to call its case one of “late recovery.”

Finally, the Andean group, Middle East, and other Africa (dominated by Nigeria) were basically *stagnant* throughout the period as shown in Figure 3.

As discussed quickly below and in detail in Rada and Taylor (2006) and United Nations (2006) sustained growth in the successful regions was associated with changes in economic structure in several dimensions. Output and labor share shifts, trade diversification, sustained productivity growth with (in some cases) strong reallocation effects due to movements of labor from low to high productivity sectors showed up strongly in fast-growing economies. Aside from a shift of employment toward service sectors, structural change was only sporadic in the other regions.

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1. The representative group is made up of four countries often discussed in the development literature, and the others are included essentially on grounds of availability of data.
  2. It is customary to make international income comparisons in terms of purchasing power parity (or PPP). However, as explained in Rada and Taylor (2006) PPP estimates distort the macroeconomic relationships that are at the heart of our analysis. When it comes to policy formation, it is far more useful to think about macro relationships in traditional “real” terms.

Figure 1: Log of GDP per capita for sustained growth regions

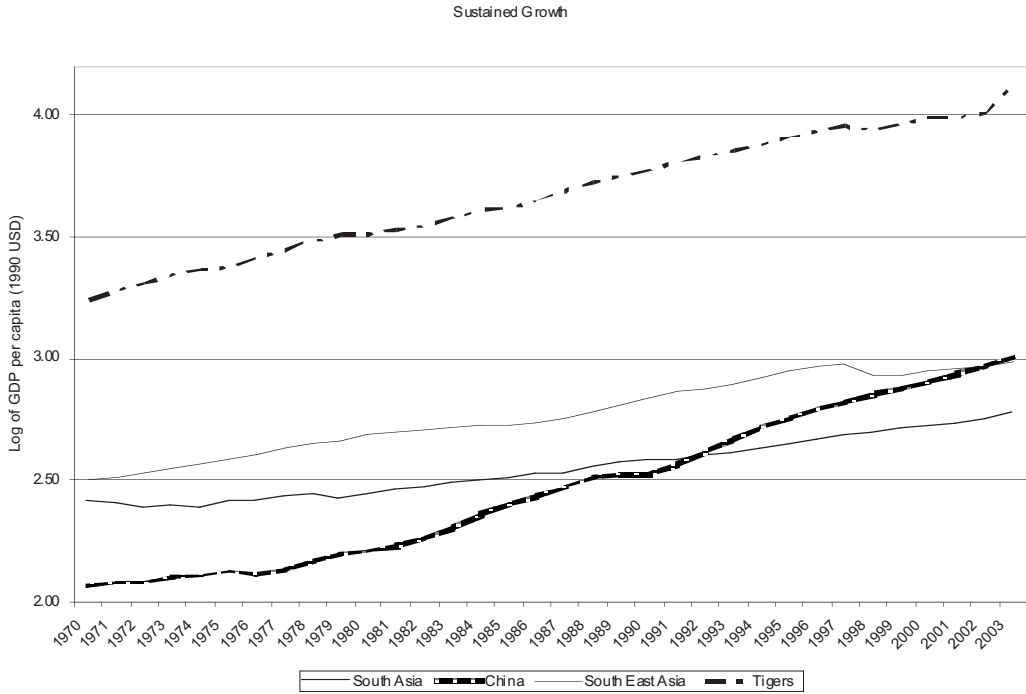


Figure 2: Log of GDP per capita for late recovery regions

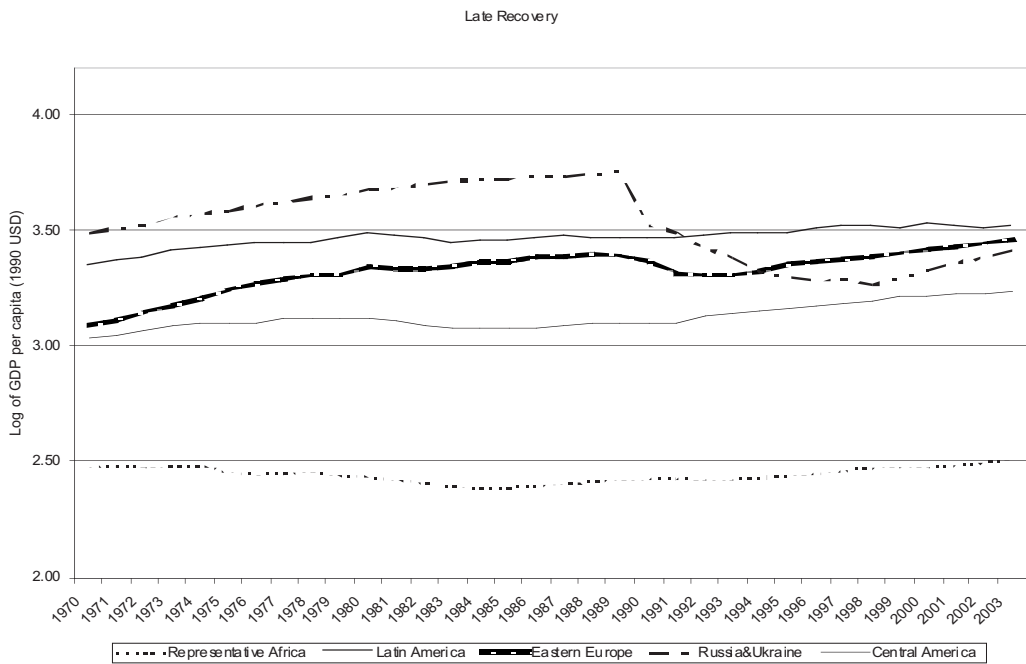
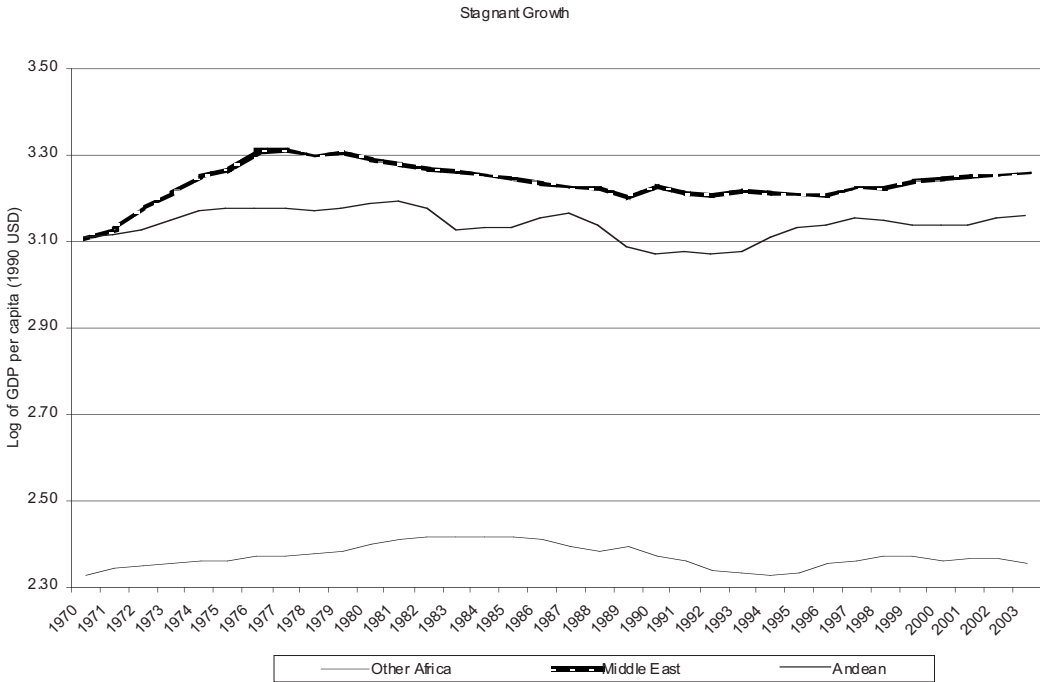


Figure 3: Log of GDP per capita for stagnant growth regions



### Identifying Structural Change

Any economy is a dynamic entity which changes its structures and features as development takes place. Indeed, a continuous transformation of the economic structure is key ingredient behind sustained growth and development. This view is held by economists trained in the structuralist macroeconomic tradition. They hold that structural change is the “ability of an economy to constantly generate new dynamic activities” (Ocampo, 2005) characterized by higher productivity and increasing returns to scale. In this regard getting to know which structural changes are evident for the regions that have recorded sustained economic growth is key to understanding future directions that other developing

economies are likely to take. Needless to say, any economy is a unique entity which has its own characteristics that require its own policies. But stylized facts show that there are identifiable macroeconomic directions that are valid across different economic systems.

To identify these macroeconomic directions we analyze structural shifts from several angles. One is a decomposition of labor productivity growth between agricultural, industrial, and service sectors. Overall productivity growth comes out as an average of own-rates of growth (weighted by output shares) for all sectors along with the aforementioned “reallocation effects” which are positive for sectors with relatively low average productivity in which employment

falls or for high-productivity sectors in which employment rises.<sup>3</sup>

A second exercise focuses on growth rates of the economy-wide employment/population ratio which is decomposed into an average of growth rates of the ratio by sectors weighted by employment shares. As it turns out, the ratio of a sector's own-employment to total population will rise if the growth rate of its output per capita exceeds its growth rate of labor productivity.<sup>4</sup> An economy can be considered to be performing well if it has *both* sustained productivity growth *and* a rising employment/population ratio overall.

Finally, we look at net borrowing flows (incomes minus expenditures) over time for the government, private, and rest of the world "institutional sectors" (normalized by GDP).<sup>5</sup> As an accounting identity, borrowings must sum to zero:

(Private investment – Saving) + (Public spending – Taxes) + (Exports – Imports) = 0, with a positive entry indicating that a sector is a net contributor to effective demand.

## Output Growth

One notable finding is that sustained growth among "successful" countries was accompanied by structural change, while countries that did not enjoy per capita growth showed little evolution. This aspect of the development process has always been well known (to structuralists at least) but ignored for the past two or three decades despite its deep policy implications.

In one well-known aspect of sustained development, the five rapidly growing regions

showed substantial shifts in sectoral output shares, in the classic movement from primary toward secondary and tertiary sectors. The pattern stands out in Figures 4 through 6 which present scatter plots of per capita GDP growth vs. percentage changes in sectoral shares (again 1970-2003).

For the five regions with per capita output growth exceeding 2%, Figure 4 shows a clear inverse relationship between growth rates and changes in the agricultural share. The lagging seven regions basically generate a random scatter. The rising agricultural shares in the Andean and Middle Eastern regions are anomalous as is the decrease accompanied by negative growth in Russia/Ukraine.

Similar observations apply to the other sectors – clear associations emerge for the rapid growers and ill-defined data clouds for the other regions. The growing regions had rising industrial shares in Figure 5 (less so in Eastern Europe which prior to 1970 had already been pushed toward industrial specialization). Four slow growers suffered long-term deindustrialization, while the industrial share in Russia and Ukraine did not exhibit much dynamics. Following a long period of industrialization and rapid output growth the fast growers had increases in the service sector share (to be expected) in Figure 6. There was no apparent relationship for the others (except in Central American and the Caribbean, possibly reflecting tourism).

3. The approach follows Syrquin (1986).

4. The original insight is Pasinetti's (1981).

5. The approach followed here is a variant on a demand decomposition proposed by Godley and Cripps (1983).

Figure 4: Growth performance and structural change in agriculture

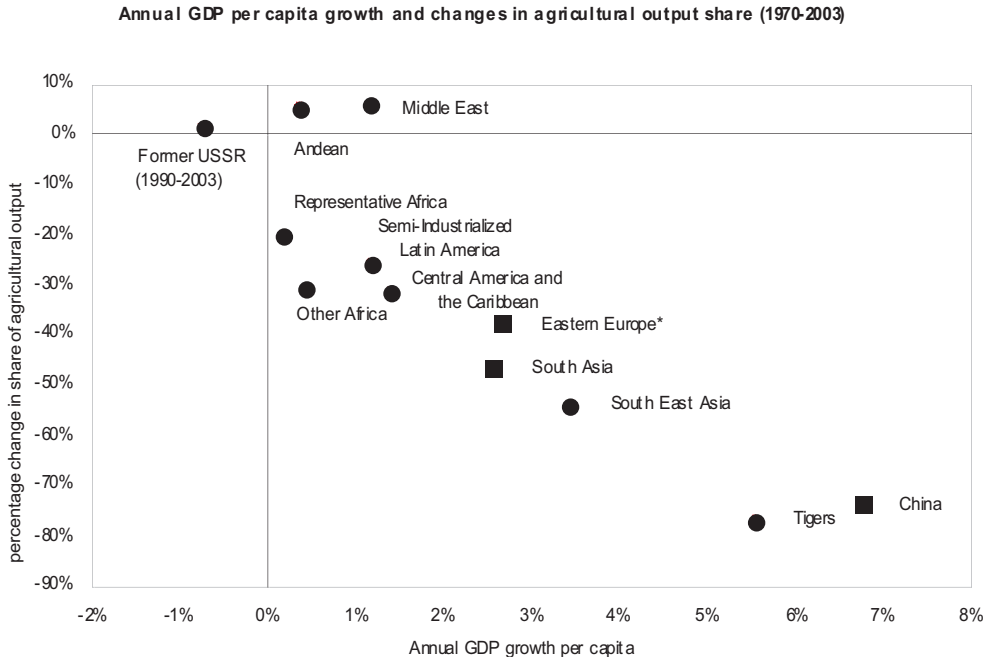


Figure 5: Growth performance and structural change in industry

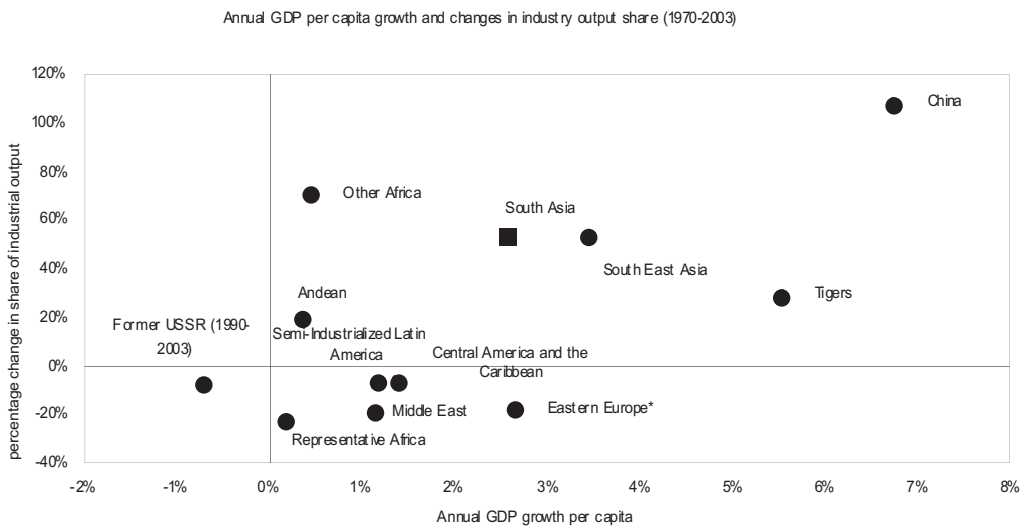
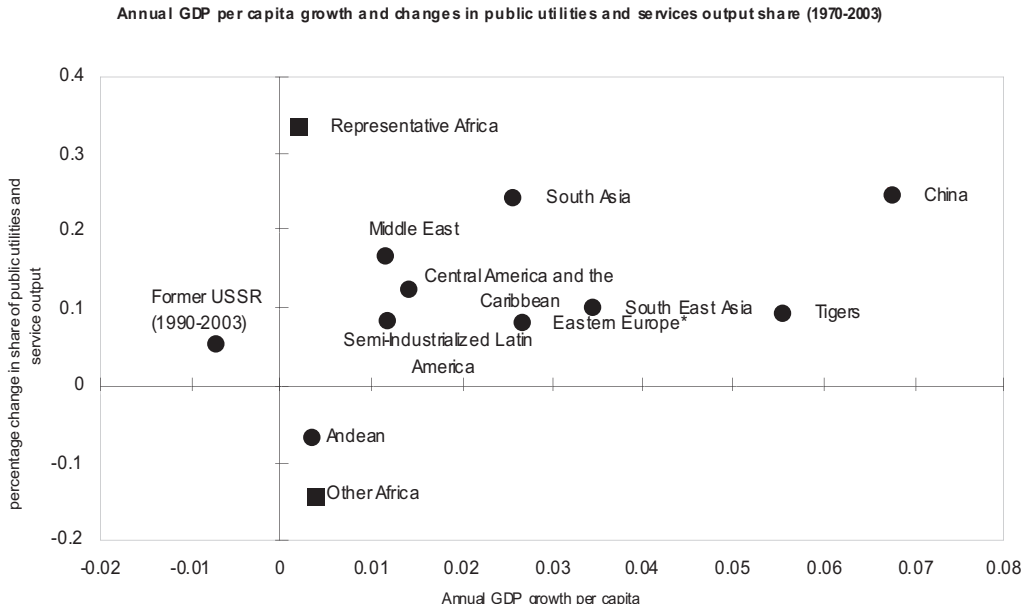


Figure 6: Growth performance and structural change in service sector



## Productivity Growth

Historically, labor productivity increases have been the major contributing factor to gains in real GDP per capita. At the same time, faster productivity growth cuts into employment growth unless it is offset by rising effective demand. Details are investigated here and in the following section.

Figure 7 shows overall productivity growth for the period 1991-2003/4. The rapidly growing regions had productivity growth rates exceeding (some greatly exceeding) the rich country norm of 2% per year. The others fell well short, and the former USSR had negative productivity growth.

In terms of phasing over time, more detailed results not presented here show that Russia/Ukraine suffered an enormous productivity collapse (-9.7% per year) in 1991-95, but then recovered to 5.6% (1999-

2003). Eastern Europe showed a similar though far less violent pattern. The Tiger region rapidly recovered its productivity growth rate of 4-5% per year after the 1997 Asian crisis. Southeast Asia also had 4-5% annual productivity growth prior to the 1997, but rates tailed off thereafter. The other regions had growth rate fluctuations over time but no clear trends.

Figures 8-10 summarize direct and reallocation contributions by sector to overall productivity increases (as discussed above). Comparing Figures 7 and 8 shows that agriculture did not make a large contribution to productivity growth overall. In several regions the sector's reallocation effects were negative. The meaning is that there was positive employment growth in agriculture with its relatively low average productivity. This finding is not surprising in China, South

Figure 7: Overall productivity growth

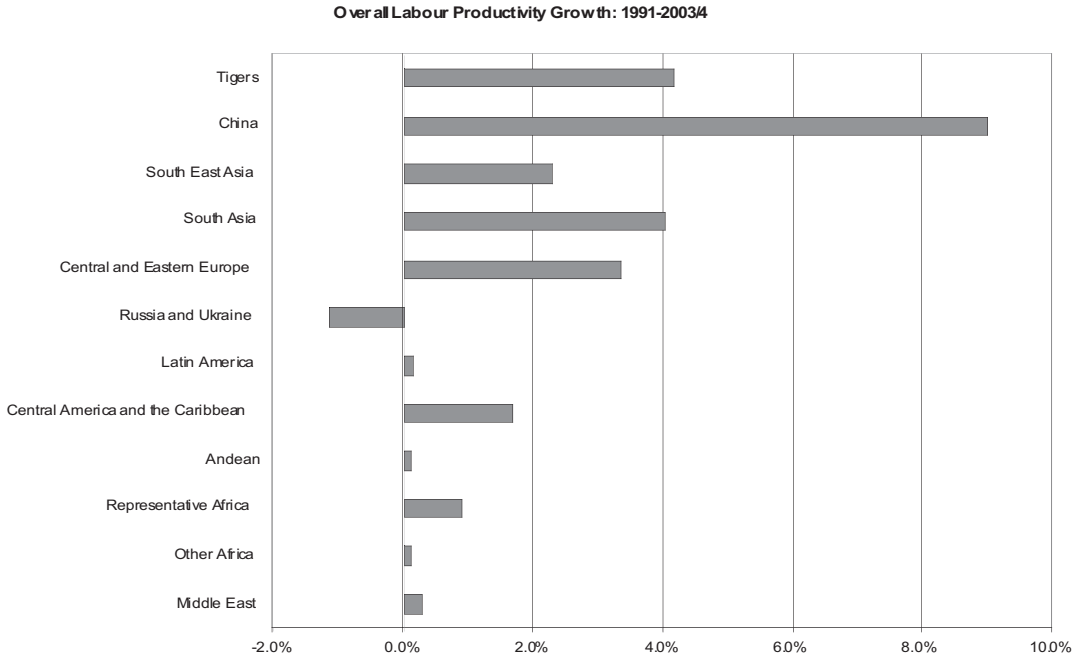


Figure 8: Contribution of agriculture sector to productivity growth

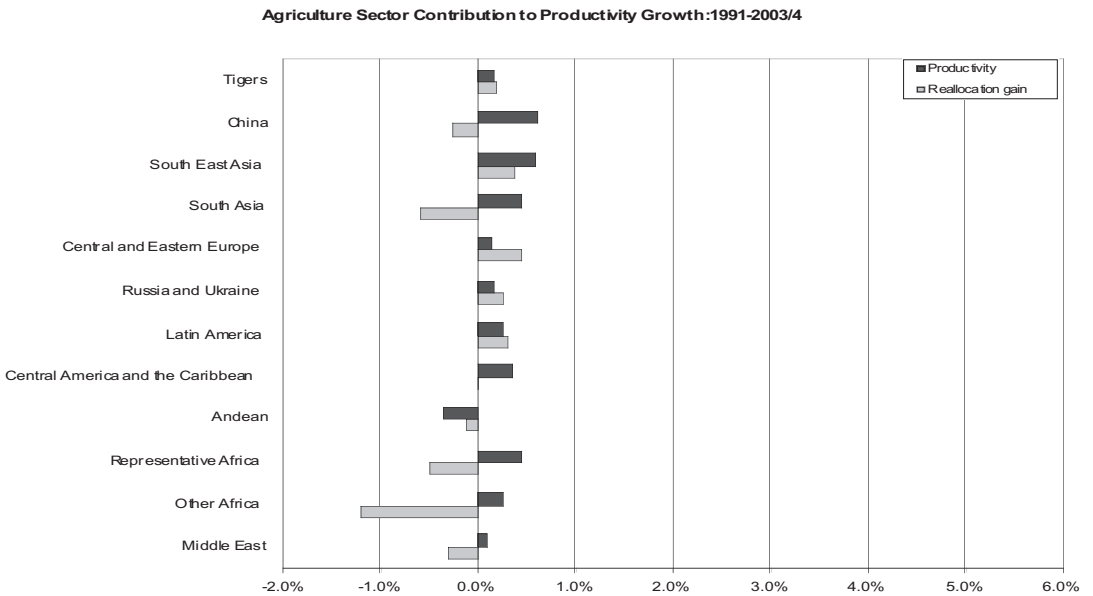
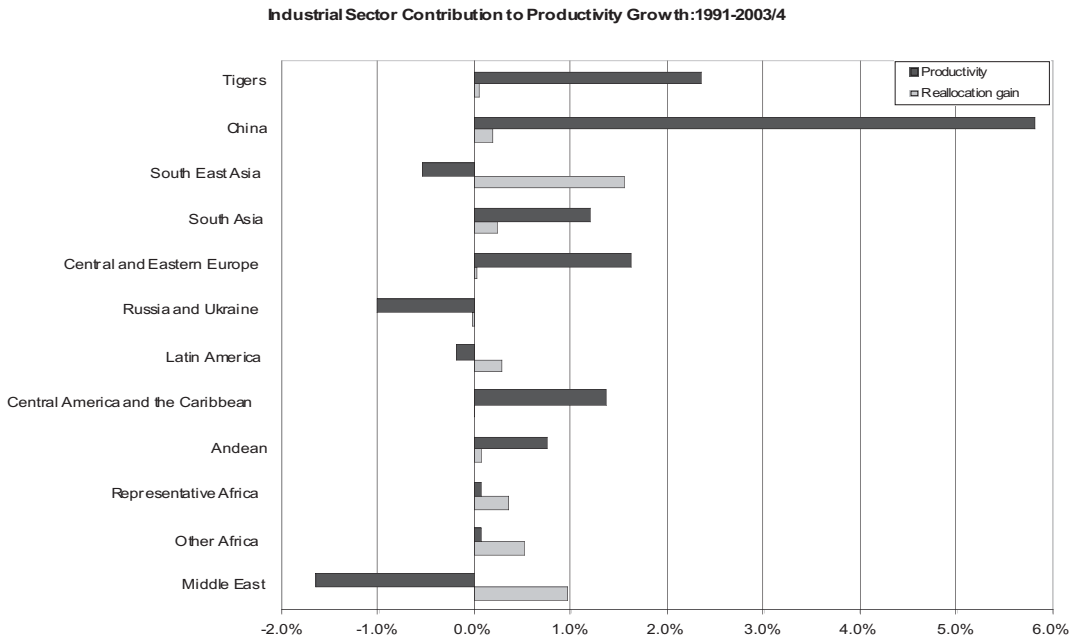


Figure 9: Contribution of industrial sector to productivity growth



Asia, and Africa, but is a bit discordant in the Middle East with miniscule agricultural sectors in the major oil producers.

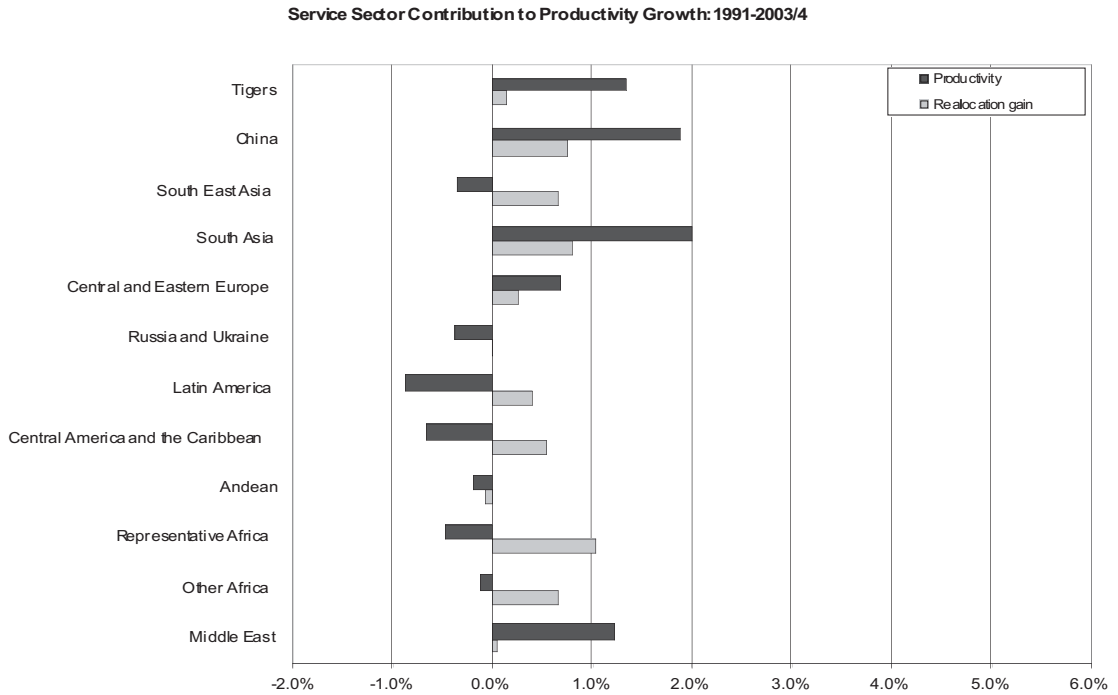
The industrial sector's own productivity growth made a substantial contribution to the total in four of the rapidly growing regions (Figure 9) and there was a strong reallocation contribution in Southeast Asia, the outlier. In China the sector directly contributed almost two-thirds of the overall productivity growth rate of 9% shown in Figure 7. Industry made a visible contribution in the two poorer Western Hemisphere regions but detracted from overall productivity performance in Russia and Ukraine and the Middle East (the latter gained from reallocation).

Services in Figure 10 also added to total productivity increase in the rapid growers (as with industry, a negative direct but positive

reallocation contribution in Southeast Asia). In other regions, the direct contribution from services was typically negative with modest positive contributions from reallocation. This distinction among regions has implications for job creation, as taken up below.

The bottom line on productivity growth is that the two non-agricultural sectors made solid contributions to the total in the fast-growing regions, even as their overall importance in the economy rose. Elsewhere the results were a mixed bag, with no clear patterns emerging. Insofar as it is measured by average labor productivity growth, technological advance was evident economy-wide in the growing regions and absent or at best sporadically present in other corners of the world.

Figure 10: Contribution of service sector to productivity growth



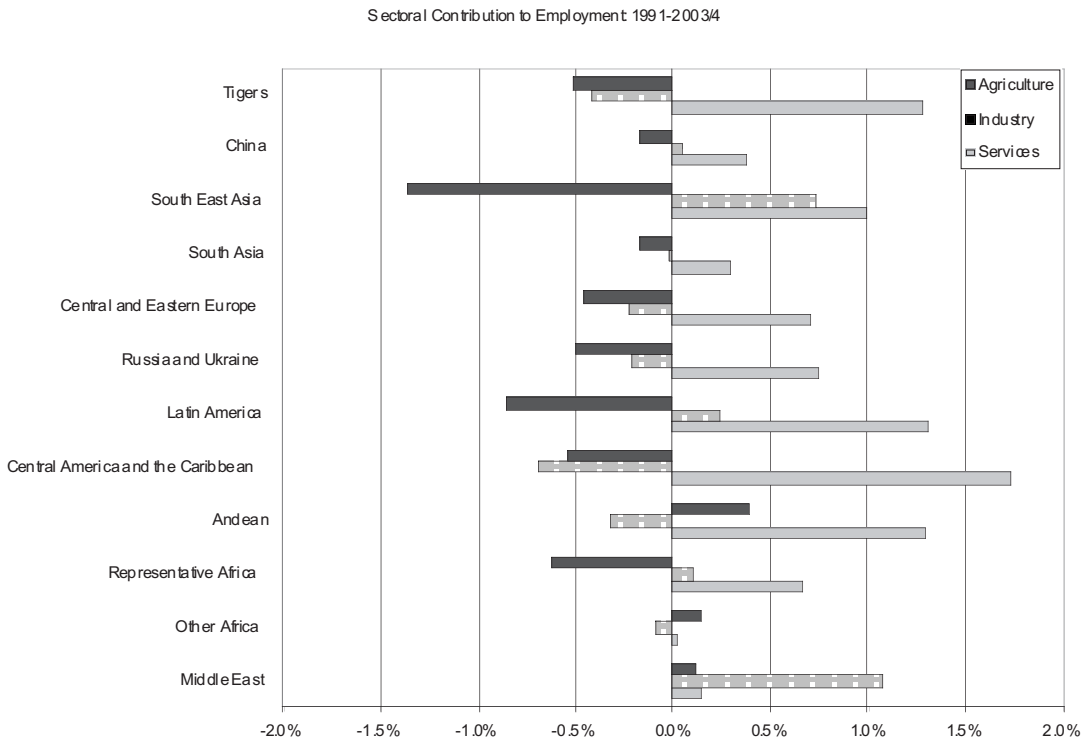
## Employment Growth Patterns

Figure 11 presents shifts in sectoral employment/population ratios in terms of their contributions to changes in the ratio economy-wide. Regional growth rates of the overall ratio hovered around zero, with more positive than negative values. As noted above, at both the sectoral and national levels, the ratio(s) will grow when the growth rate of output per capita exceeds labor productivity growth. The ratio(s) will also tend to rise when population growth is negative, as was the case in Eastern Europe and the former Soviet Union.

The most striking feature in Figure 11 is the apparent *similarity* of all 12 regions in the sense that services showed a rising employment/output ratio everywhere, rather

strongly except in Other Africa, the Middle East, and (to an extent) South Asia. The details, however, differed between fast- and slow-growing regions. For the rapid growers, the positive contribution of services to employment growth shows that output per capita grew faster than the sector's rising productivity that supported its positive contributions to productivity growth overall (darker bars) in Figure 10. Positive reallocation gains were due to the fact that services have relatively high average productivity. In the slower growing regions, direct contributions of services to economy-wide productivity were weak but jobs were still created because of rising demand. Productivity did not increase rapidly within the sector but the shifts in employment toward

Figure 11: Sectoral contributions to employment



it reflected in Figure 11 added to productivity growth economy-wide.

Relative to population growth, agriculture was a source of employable labor in nine regions (very strongly in Southeast Asia) and a sink only in (especially) the Andean region, Other Africa, and the Middle East.

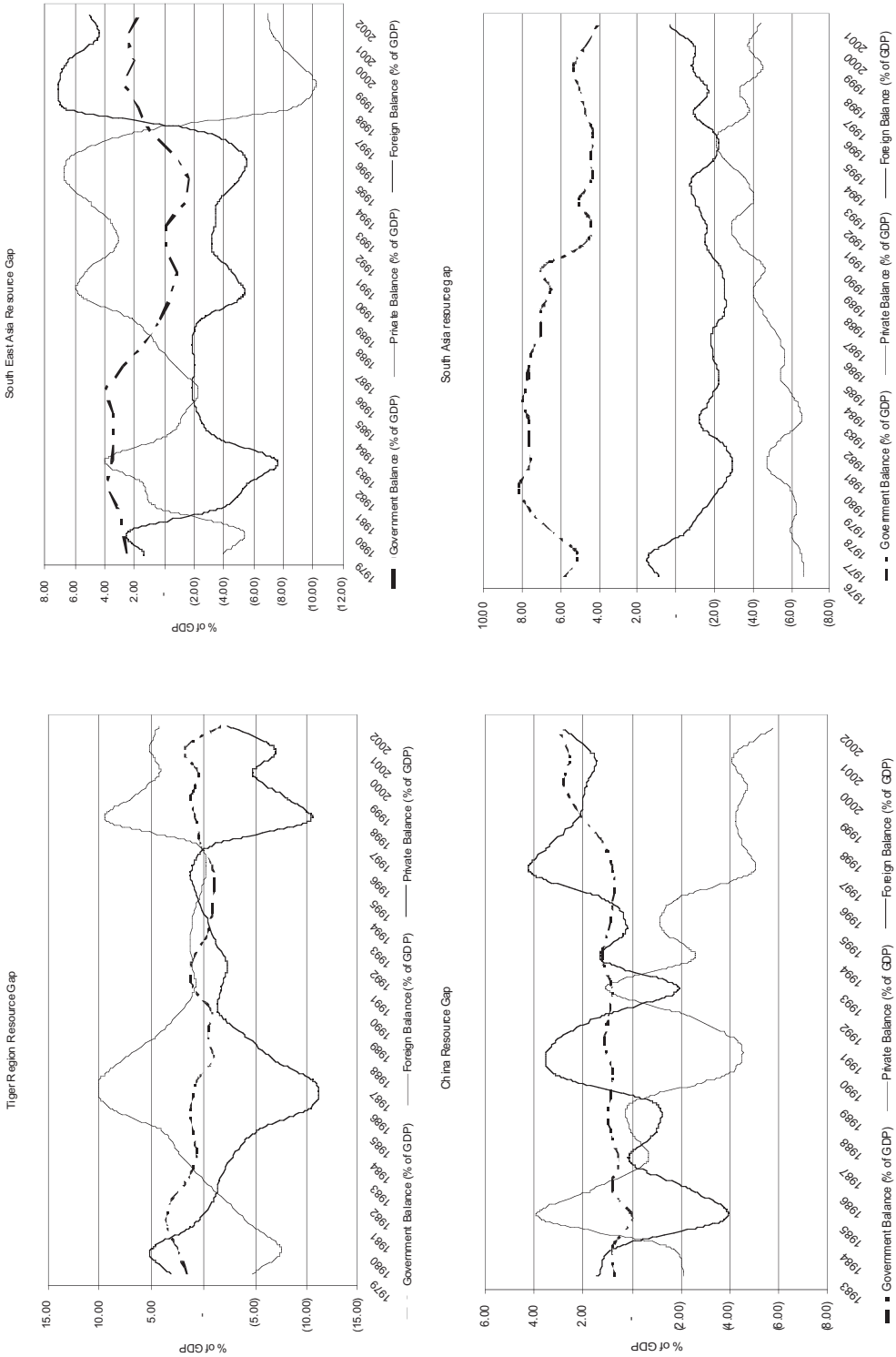
Except in (especially) Southeast Asia, Latin America, and Representative Africa, the industrial sector was not a strong provider of jobs. Consistent with Figures 9 and 11, its rate of productivity growth tended to exceed its growth in demand per capita. An old observation in structuralist development economics is that industry is the main motor for productivity growth but not for job creation.

### Patterns of Net Borrowing

The next topic is net borrowing flows by institutional sectors, which provide information on overall demand and macro cycles. Recall from section 1 that net borrowing flows by the private, government, and foreign sectors must sum to zero as a condition for macroeconomic accounting balance.

Figure 12 shows how they evolved for the regions that had sustained growth after the mid-1970s. The Tigers, China, and Southeast Asia show opposing co-movements between private and foreign net borrowing with government borrowing maintaining a relatively constant (Tigers), mildly fluctuating (Southeast Asia), or slightly trended (China) share of GDP. The private and foreign co-

Figure 12: Resource gap by institutional sectors in the regions with sustained growth



movements were relatively large, with swings up and down exceeding 10% of GDP in the Tigers and Southeast Asia. Maintaining very high per capita income growth over a 25-year period with the macro economy subject to such extreme fluctuations is a feat perhaps unprecedented historically.

In contrast, all three series in South Asia remain nearly flat with a government deficit, sustained private net lending (negative net borrowing), and a balanced external account. The private net lending share resembles China's, except that in South Asia the private surplus financed a fiscal deficit while in China the external account was in surplus.

The other regions had more diverse patterns (Figures 13 and 14). Several – Latin America, Eastern Europe, Central America and Caribbean, the Andes, and representative Africa — seemed to have more or less structural external deficits which did not vanish over time (although magnitudes fluctuated). A trade-off came up in that either the government or the private sector (or both) had to play the role of an internal borrower to offset the external gap. The persistent gap could have damaged growth performance overall. It is extremely difficult to manage an economy in which crucial imported capital and intermediate goods may be cut off at any time due to scarce foreign exchange.

In Latin America the government assumed the borrowing role. There were offsetting movements in the other regions with private borrowing rising after government deficits were cut back in austerity programs (representative Africa, Central America and the Caribbean, and the Andean economies after the early 1980s; Eastern Europe after the early 1990s) with subsequent switches the other way in some cases.

In Russia (like China a transition economy with a historically high saving rate), a falling government deficit offset the strong upward

swing in the external surplus after 1998. There were similar, longer-lasting trends after the mid-1970s in the Middle East, accompanied by fluctuating private borrowing. Movements in both private and government net borrowing offset the shifting external balance in other Africa.

The standard “twin deficits” scenario featuring mutually offsetting movements of the external and fiscal deficits appears only sporadically in the diagrams. In particular, fiscal austerity seemed more associated with rising private borrowing than falling external deficits. A great deal of orthodox macroeconomic stabilization theory — notably the Polak (1957) model that for half-a-century has been the bedrock of the “financial programming” built into almost all IMF packages — does not appear to be consistent with the data.

The implications for macroeconomic causal relationships are worth considering. For example, if there is a “binding” external constraint that holds the trade deficit roughly constant, then crowding-out of private demand by higher public demand is a familiar story. One rationale is that if prices are not stabilized by purchasing power parity then they may begin to rise in response to higher effective demand. Inflation tax and forced saving mechanisms can kick in, reducing real demand by the private sector (Taylor, 2004). In Latin America, the Andean economies, Central America and the Caribbean, Eastern Europe, and representative Africa such processes also appeared to work in reverse. Austerity in the form of a reduced fiscal deficit relaxed the squeeze on the private sector, and its demand rose by enough to keep output close to the limit imposed by a structural external gap. If the external restriction is lifted by an external bonanza, the results from the Middle East and Russia suggest that governments know how to reduce their net

Figure 13: Resource gap by institutional sectors in the late recovery regions

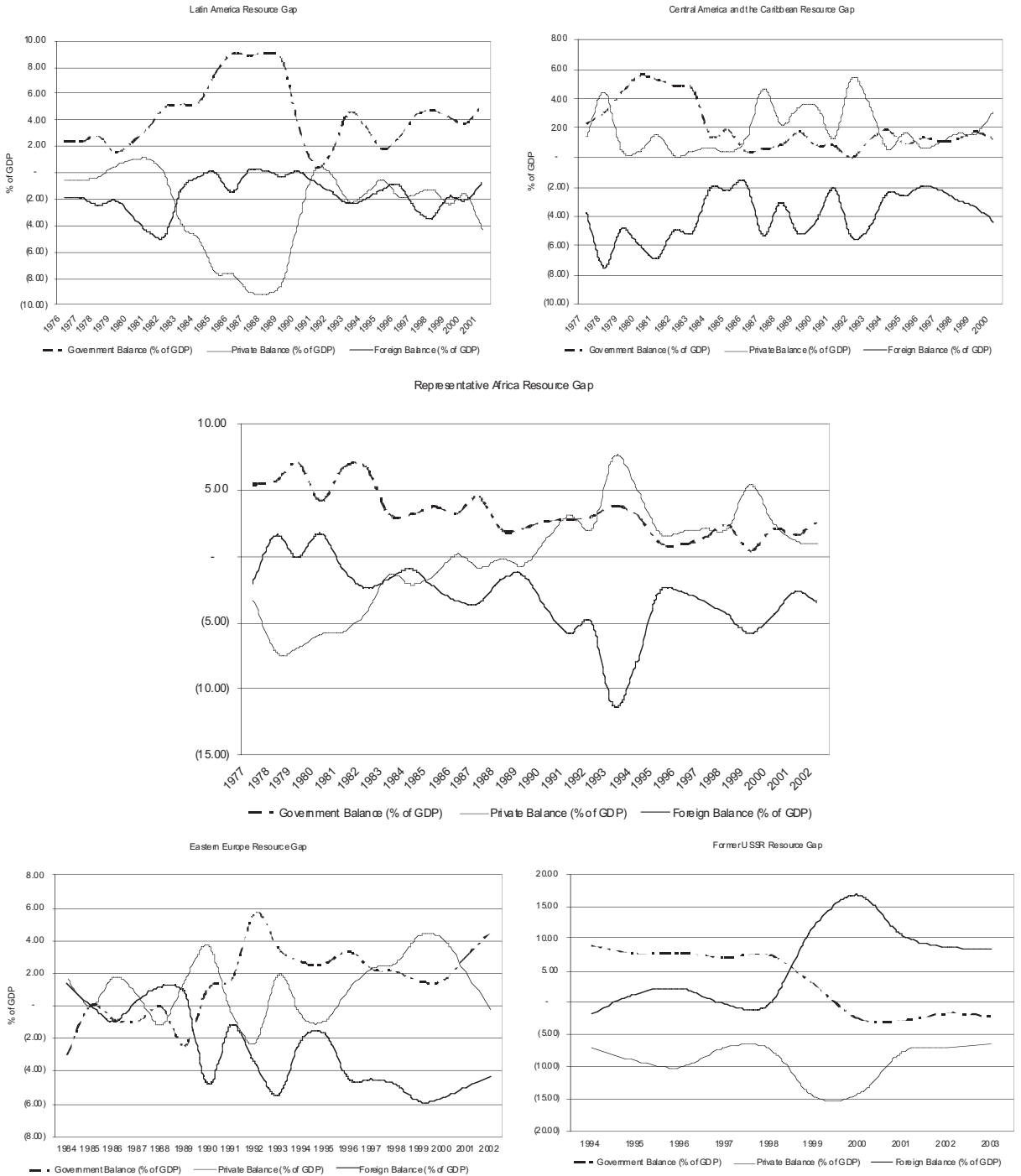
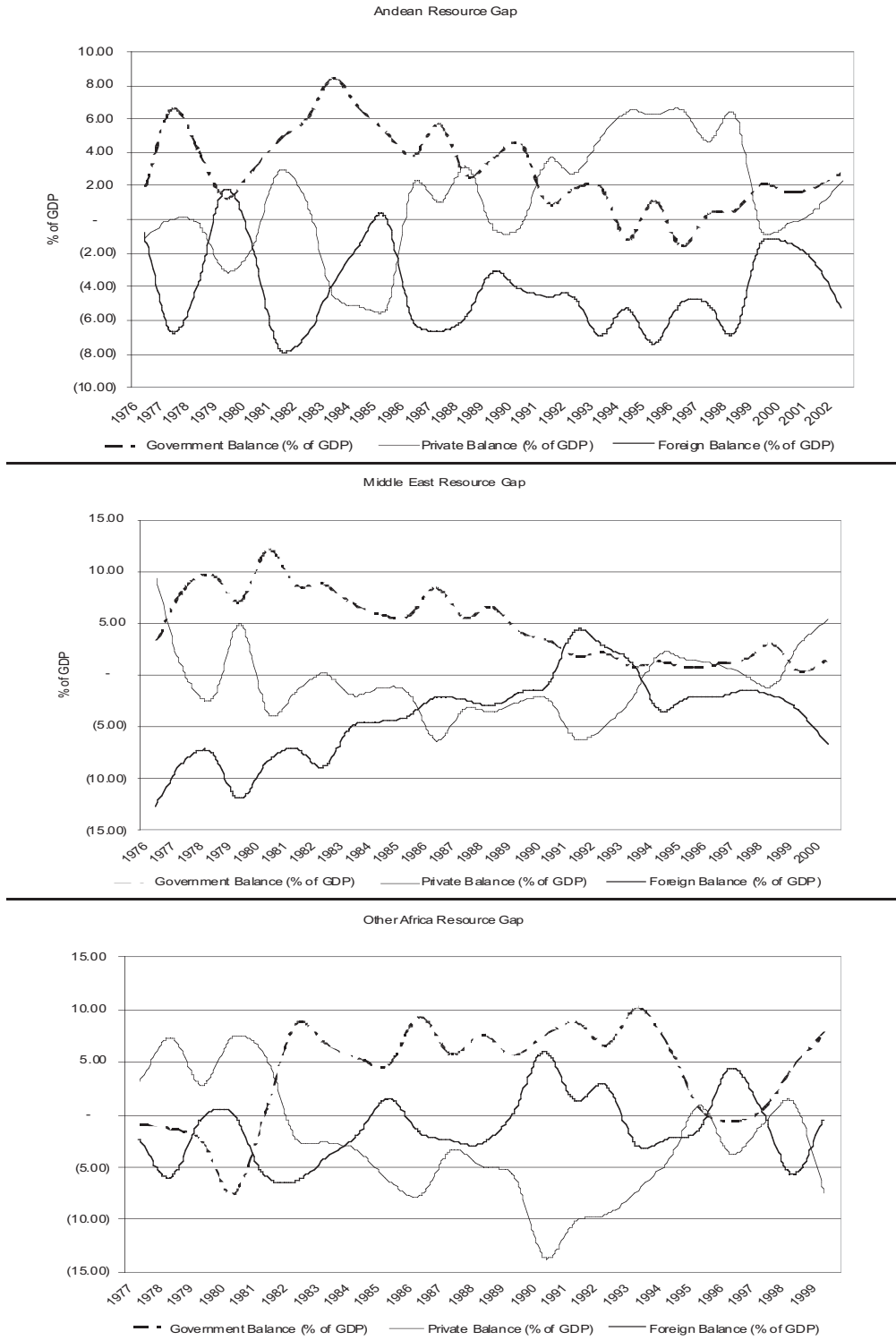


Figure 14: Resource gap by institutional sectors in the regions with stagnant growth



borrowing enough to absorb the proceeds of extra resource rents.

### Implications for Policy

As noted at the outset, there was major policy shift that occurred worldwide since the 1970s and 1980s – a move on the part of most countries to deregulate or liberalize their external current and capital accounts along with domestic labor and financial markets. Our empirical results help trace out its implications.

As Figures 1-3 illustrate, growth performances deteriorated after 1980 in many parts of the world. Clear success cases at the country level – various Tigers, China, Vietnam in Southeast Asia, and more recently India – are scarcely paragons of neo-liberalism. Some Eastern European policy-makers think of themselves in that way but many vestiges of the old order remain.

Moreover, the fact that structural change in several dimensions – output and labor share shifts, trade diversification, sustained productivity growth with (in some cases) strong reallocation effects – showed up strongly in the fast-growing economies and sporadically elsewhere may carry an implicit message that intelligent sector-level policies can facilitate the development process.

In macro terms, austerity was supposed to lead to improvement in external balances along IMF financial programming lines. That clearly was not the common outcome. Even falling government deficits and rising external surpluses in the Middle East and Russia are better explained from the external than domestic side. More typical were co-movements of private and foreign or (less frequently) private and government

borrowing flows. These have to be examined in terms of the specific macro behavior of each economy concerned.

Macroeconomic flexibility, although difficult to define and probably even harder to attain, also appears to be important. Witness the wide swings in net borrowing flows between 1980 and 2000 in the Tigers and Southeast Asia. Through it all, they continued to grow.

Stated goals of the liberalization package were to enhance productivity and employment growth. Outside the consistently expanding economies, this did not happen. Productivity movements across sectors differed in detail across slow-growing and stagnant regions but did not add up to very much. Employment/population ratios rose in the Andean and Middle Eastern regions.<sup>6</sup> Elsewhere, liberalization did not help create jobs — industrial jobs in particular.

Privatization and financial deregulation were followed by financial crises (sometimes repeated) in many countries, associated with vulnerability and under-regulation of the financial sector, speculative behavior on both sides of financial markets which led to national balance sheets dangerously short on foreign assets and long on domestic holdings including real estate and equity (usually newly created through privatization), and cycles of real exchange rate appreciation. The crises help explain the erratic performances in Latin America, Eastern Europe, and Russia. As noted above, Southeast Asia did not recover as strongly as the Tigers from the 1997 crisis. China and India to a large extent evaded its impacts by maintaining capital controls.

In sum, results across the regions *differed*. Fast-growing regions were in many ways less zealous about applying the liberalization

6. A rise of the ratio in Russia/Ukraine can be discounted because of negative population growth.

philosophy, and performed better. Elsewhere, there was enough variety to suggest that specific aspects of each region and its economies were important in shaping outcomes. *Structure matters*. The policy analysis challenge is to figure out just how and why.

### Bretton Woods Justifications

Liberalization was heavily promoted by the Bretton Woods Institutions under the famous aegis of the “Washington Consensus.” It is interesting to consider how the Institutions themselves grapple with the apparent failure of their recommendations.

One mode of discourse, especially common on the part of the research department of the World Bank, is to repeat policy proposals even when they have been severely criticized or discredited. Ozawa (2006) gives ample detail. Here is a quick summary:

Agarwala (1983) proposed a “distortion index” based on seven indicators which he asserted had a negative relationship with growth. The paper was greeted with fanfare in that year’s *World Development Report* from the Bank and the *Economist* magazine. Soon thereafter, the results were refuted by Aghazadeh and Evans (1985) who expanded on Agarwala’s econometrics to conclude that

We tested a Non-Structuralist, Structuralist, Animal Spirits and Export-led growth story for consistency with the data. We found that the data were most consistent with the Structuralist and Animal Spirit stories, and that in both cases there was some evidence that national development strategies relying on a strongly interventionist state backed by high military expenditure worked best.

The Agarwala paper vanished from discussion. Yet by the time the 1991 *World Development Report* rolled around the Bank was again claiming that reducing distortions would enhance productivity growth, with equally flimsy econometric support as pointed out by Fanelli, Frenkel, and Taylor (1992). With regard to the *WDR*’s reported linkages between productivity growth and absence of market distortions or economic openness, they observe that

Of 37 reported regression coefficients, five have the “wrong” sign (i.e. greater distortion is associated with faster growth) and only 13 of the 32 other relationships are significant at the 5 percent level. One learns ... that  $R^2$  values in partial correlations between lower distortions and growth (after taking into account the effects of human and physical capital and other variables) range from 0.03 to 0.3. *With such weak relationships many economies in the WDR’s samples are bound to have behaved the “wrong” way* [emphasis added].

This statement reflects the now widely accepted view that cross-country regressions are essentially useless when it comes to explaining economic growth.

The Bank’s 1991 econometric exercises also vanished, perhaps because by 1993 the well-known *East Asian Miracle* report emphasized “market friendliness” as the key to the region’s success, a claim that met with resounding criticism soon after. And Dollar (2004) touted the post-1980 period as one of success for developing countries in general under globalization, in flat contradiction to Figures 1-3 above.<sup>7</sup>

7. Weisbrot et. al. (2001) give an incisive critique of an earlier version by Dollar and Kray (2001).

In another area, World Bank computable general equilibrium (CGE) models always give estimates in the high range of “welfare gains” from trade liberalization. Unfortunately, as argued in detail by Taylor and Arnim (2006), in their technical details the models are fundamentally flawed. They rely on “little triangle” welfare indicators which many sensible people repudiate, and then apply them incorrectly! The standard calculations are based on movements of prices and quantities along stable demand and supply curves. But in the Bank’s CGE models the specification of price formation under international trade interacts with the fiscal balance in such a way as to shift the level of effective demand. Cutting tariffs (or reducing trade subsidies) paradoxically reduces (or increases) real aggregate consumption, meaning that all sectoral level welfare calculations are subject to biases of unknown magnitude and direction.

Finally, one new strand in development thinking is related to liberalization’s motley and often unfavorable outcomes. It is the study of “governance” or how “institutions” condition the development process. In recent *World Development Reports*, this line of thought seems to boil down to Blame the Victim. If Washington Consensus policies don’t deliver favorable outcomes in some developing or transition country, the blame doesn’t rest with the policies themselves but with the country’s own inadequate institutions. It should remake its institutions along neo-liberal lines, a strikingly ahistorical assertion if there ever was one. Currently rich countries did not have strongly liberal institutions, as scholars from Polanyi (1944) to Chang (2002) have pointed out.

## How Should Policies Change?

Other ideas are much more worth developing. We can begin with notions relevant to the growth process as such:

One important point, strongly enunciated by Nayyar (2005), is that policy makers in developing countries have had their hands tied by the liberalization process – in the areas of macroeconomics and industrial policy among others.

An idea tracing back to Adam Smith and recently restated by Reinert (2006) and formalized by Rada (2006) is that the economy can usefully be viewed as a combination of dynamic increasing returns sectors and more plodding constant or decreasing returns activities. The goal is to stimulate the former while shifting resources (especially labor) from the latter. Figures 4-11 illustrate how the rapidly growing regions succeeded at this task. The question is how to design policies that will facilitate similar processes elsewhere.

Indeed, charting institutional changes that could open up degrees of freedom for the pursuit of developmentalist policies looks like a more fruitful approach than abstractly theorizing about institutions and trying to quantify their impacts along purely neoclassical lines. Some examples:

Does the open economy “trilemma” really bind? That is, can independent monetary/fiscal policies, exchange rate programming, and open capital markets all be combined? In the land of textbooks it is straightforward to show that they can be, or in other words that the Mundell-Fleming “duality” between a floating exchange rate and control of the money supply does not exist. A central bank in principle has enough tools at its disposal to control monetary aggregates regardless of the forces determining the exchange rate.<sup>8</sup>

In practice, however, arbitrary changes in monetary and exchange rate policies may be

attacked by markets. Along Nayyar's lines, the question then becomes one of how other policies may be deployed widen boundaries on feasible maneuvers. Frenkel and Taylor (2006) argue that under appropriate circumstances a weak exchange rate can be desirable for developmentalist reasons. The "circumstances" include a productive sector which is responsive to price signals, a monetary authority willing and able to maintain a weak rate for an extended period of time (perhaps supported by capital market and other interventions), and political willingness to bear the (conceivably high) initial costs of devaluation including potential inflation and output contraction. Getting away from the recent obsession with using the exchange rate for "inflation targeting" could be a useful step toward making it a more developmentally useful policy tool.

In the area of industrial/commercial policy, the impact of the WTO has been to rule out interventions involving tariffs and

trade while up to a point different forms of subsidies (witness Airbus vs. Boeing!) are still considered kosher. How can developing and transition economies operate effectively in this new environment? The Smithian prescription to stimulate increasing returns sectors did not cease to apply when the WTO was born. The question is how to implement it under present circumstances.

At the macro level, a question implicit in Figure 11 is also relevant: how can economies avoid the "jobless growth" that has been characteristic of the liberalization period? Evidently, productivity growth must be positive for per capita incomes to rise but demand growth must be stronger for employment to be created in support of a socially sustainable growth process. It remains to be seen in many countries whether they will be able to program rapid growth in demand under a regime of liberalized international capital markets.

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8. For the gory textbook details see Chapter 10 in Taylor (2004). Frenkel and Taylor (2006) present a more institutionally nuanced discussion.

## Appendix: Countries in the Regional Groups

1. Representative Africa: Ghana, Kenya, Uganda and Tanzania
2. Other Africa: Cameroon, Ethiopia, Ivory Coast, Mozambique, Nigeria, Zimbabwe
3. Central America and the Caribbean: Costa Rica, Dominican Republic, El Salvador, Guatemala, Jamaica
4. Andean Region: Bolivia, Ecuador, Peru
5. Semi-Industrialized Latin America (with Turkey and South Africa as additions): Argentina, Brazil, Chile, Colombia, Mexico, Venezuela, Turkey, South Africa
6. South Asia: Bangladesh, India, Pakistan, Sri Lanka
7. China
8. Southeast Asia: Indonesia, Philippines, Thailand, Vietnam
9. Tigers: Korea, Malaysia, Singapore, Taiwan
10. Middle East: Algeria, Egypt, Morocco, Tunisia, Iran, Iraq, Jordan, Saudi Arabia, Syria, Yemen
11. Former USSR: Russian Federation, Ukraine
12. Eastern Europe: Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia

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