

## **STRUCTURAL REFORMS, TECHNOLOGICAL GAPS AND ECONOMIC DEVELOPMENT.**

### **A LATIN AMERICAN PERSPECTIVE IN THE 1990'S**

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This paper nurtures upon Nelson and Winter's idea of the development process as a structural evolutionary phenomena in which the rate and direction of knowledge accumulation attained by any given society has both microeconomic and institutional dimensions . This proposition implies that the institutional context and firm-level decisions matter in shaping the idioscratic path that industries and countries follow through time and how successfully they manage the process of economic change. From our own point of view, the institutional and firm-level variables operate in developing societies in a micro-to-macro environment which is radically different from the one that prevails in more mature industrial countries. We refer here to features of developing economies such as the high degree of macroeconomic turbulence, the rapidly changing production specialization and the complex transition from a command economy to a market-oriented incentive regime.

While economists dealing with innovation and economic growth in mature economies can take for granted a certain amount of macro stability and of the global incentive regime, the central and crucial element in our view of the development process is that the high degree of macro turbulence and the rapidly changing pattern of production specialisation and competitiveness strongly influence technological behaviour. Throughout our presentation we give particular attention to the interplay between changes in the macroeconomic incentive regime, the regulatory environment and the way in which firms and industries import, adapt and generate locally the technology that they employ in production activities.

Although there is increasing empirical evidence showing that successful firms are increasingly integrating themselves with firms and countries that are leaders in international trade and technological innovation, the evidence also shows that these firms scarcely engage themselves in major local knowledge generation efforts. Thus, an increasing degree of duality seems to be emerging between producing goods and services, on the one hand, and producing knowledge and technology, on the other. At a micro and meso level, some of the "stylized facts" supporting the persistency of knowledge and technology generation gaps are: i) the rapidly raising share of imported equipment, which replaces the domestic production of machinery and the learning capabilities that are normally accumulated *pari pasu* with the above, ii) the reduction in the employment of plant engineers who have now been cut off from the payroll, as imports of capital goods have been made easier and cheaper than before, iii) the contraction of R&D efforts and engineering activities which are now being replaced by 'on-line' imports of knowledge and technology from headquarters and licensors from abroad.

As a result of the above, the paper concludes that in order for developing countries to attain a sustainable pattern of development in terms of production efficiency, innovation and growth they need an adequate set of incentives and institutional arrangements related to the generation and diffusion of knowledge.