**Macroeconomics 2 (English), 2019-2020**

**Theoretical test 2 question** (English class)**:***Industrial policy has been utilised by many countries, over the last two and a half centuries, or more, to promote and favour specific economic activities, markets, technologies and firms, and to change economic structures and trajectories. Identify some industrial policies, and their explicit objectives, that could be applied in Portugal in the XXI century, taking into consideration the constrains (and/or advantages, if any) of being part of the European Union and of the Euro mechanism.*

**Suggested basic, possible structure of questions to consider in solving this theoretical test.**

(Attention:No one is expected to give this full answer, but these are questions that, amongst others, should certainly be considered in answering the theoretical test).

Constraints faced by the Portuguese economy associated with membership of the EU and of the Euro mechanism: 1) No control over monetary policy (cannot issue money, or devalue currency, and limited control over circulation of capital); 2) narrow, stringent limits to budget deficit; 3) impossibility to impose trade barriers within the EU and with trade partners with which the EU has free trade agreements.

Constraints of the structures of the Portuguese economy: 1) structures of production and specialization too narrow and, somehow, extractive; 2) growth dependent on foreign markets and narrowly focused on exports of tourism; 3) liberalized financial markets, deficient regulation and subsequent financialization of capital accumulation; 4) state economic and social policy dominated by financial markets; 5) skills and qualifications of labour, entrepreneurs, managers; 6) precarious working conditions including in science and technology sectors.

General policies that are possible and can help development of production, and of industry in particular: **1)** *increasing the room of manoeuvre of the public budget*: ***(a)*** higher taxation of accumulated wealth, profits, higher incomes and financial transactions, ***(b)*** stringent regulation and control of state intervention to rescue/support banks (nationalisation if necessary), ***(c)*** restructuring of the debt service. **2)** *increasing public investment and/or subsidies and/or tax incentives in activities that lower marginal costs and risks of all investment, and increase the quality and productivity of private and cooperative (social) investment in production*: transports and communications, marketing, logistics, common services for industrial waste processing and environmental protection, research and technology services to provide the necessary innovation, quality control and other technology services to industries, information services about technologies, markets, finance, environmental regulations, etc.. **3)** *increasing the role of domestic markets in economic expansion,* by measures that increase diversified domestic demand and improve the quality of life of the vast “army” of wage and informal workers (these would typically involve significantly less unequal income distribution, that can be achieved by better working conditions, higher salaries, wages and pensions – including the minimum wage –, social protection mechanisms, lowering the costs and increasing the accessibility of key public services, such as health, education, sanitation, housing, public transports,….).

Specific policies for specific industries or for specific goals of industrial policy: **1)** *How to select priorities?* There are many ways of doing so, and they are associated with the problems the state wants and can address, the dynamics of markets and industries, including their short and long term business cycles, and long term perspectives, group and class dynamics and struggles between capital and labour and within groups of capital and of labour, economic and social pressures associated with structural issues (like the need to move away from a path of slow productivity growth, narrow and extractive production and trade patterns, climate change, new discoveries and advances in science, like new and greener energy sources, inequality and poor employment conditions, monopoly power and so on) and dynamics of crisis (like volatility, vulnerability to speculative bubbles, significant short-term or permanent fluctuations in demand, pandemics like SARS-CoV-2, technological change like the release of 5G power, and so on). **2)** *Definition of goals:* these can be diverse, depending on the structures, agents and global environment of the economy: goals can vary from increasing productivity, expanding employment under decent employment conditions (decent wages, stable and collective contracts, social protection, etc.), increasing fiscal revenue (industries that can generate high tax revenues in the short and medium term – because of high profitability, high levels of employment with good wages, products with high levels of taxes, etc.), taking advantage of potential domestic linkages (for substitution of imports and/or for expansion of activities) and looking at/for future markets (for example, on the technological frontier and beyond, or markets that are going through restructuring and relocation of production), in order to diversify the economic structures and dynamics, protect or restructure industries and reach for and penetrate the industrial and the scientific and technological frontier, improve the quality of working and living conditions for workers, etc. Another goal can be linked to the environment and climate change, such that policies could favour industries that replace high energy with low energy consumption or alternative, sustainable energy sources, generate alternative, sustainable energy sources or the associated technologies and applications, generate new, cleaner products with cleaner methods of productions and inputs, and so on. Lowering living costs [for example, lowering the costs and increasing the access and the quality of key wage goods (like food and clothing, for example) and services (like education, health, transports, housing, sanitation, the internet, etc.)], and guaranteeing long-term social stability (working conditions and social organization and relations of production, social security, universal basic income, etc.) for the working classes – all of these need public financing, social restructuring of production, redirection of production goals, etc. At the ned of the day, and this is particularly important to understand, industrial policy goals are not only related to the interests of specific firms and industries, but are structured by, and strongly affect, more general social and economic goals. Industrialization is potentiated and structured by existing social, economic and technological structures, conditions and tensions, and makes sense when contributes to changing addressing and solving those structures, conditions and tensions. **3)** *Using the business cycle to manage existing dynamics:* ***(a)*** sunset or senile industries (those that are at the end of their life cycle): policies like coordination of asset scraping, exploring second hand markets for technology to recover some of the sunk costs of asset scrapping, subsidisation of retraining and redeployment of workers and managers, coordination of strategies to relocate financial assets (and physical assets, when this is possible) to other industries, helping the start up process. ***(b)*** mature, established industries that have little space to expand (like industries in traditional, regional food areas): may need help to improve technologies, productivity and reduce costs, but may be essential for niche markets and to protect employment and economic growth of local communities. ***(c)*** mature, more standard industries: coordinate complementary investment, support standardization and continuous productivity growth, guarantee decent working conditions, control monopoly power, prepare for the sunset stage. ***(d)*** sunrise, or infant industries: the focus is on experimentation and innovation, which may require public finance (in the form of subsidies or of complementary investment, which enables linkages and full market potential, and indicative investment, which shows the way in areas where the economy knows little about and is just starting, as those close or beyond the existing technological frontier). Another key, important factor for sunrise industries s building scale – helping industries to generate economies of scale and scope, which can be done by industrial policies that coordinate complementary and competitive investment, thus promoting linkages, making production viable and avoiding gross overproduction and significantly wasteful and unnecessary competition.

These, amongst others, are the sort of issues to think about in attempting to answer the questions. None of these possible actions necessarily violates the EU/Euro rules. All of them attempt to increase the space of manoeuvre and to locate the economy in a better position to deal with the limitations of such rules, while, at the same time, addressing some of the key structural socioeconomic questions of the Portuguese economy.

Of course, we have not discussed the rules and the EU block – for example, is the Euro, in its current conditions, sustainable and helpful for industrial development or does it skew economic incentives and structures towards financialization? Do the stringent budget rules make macroeconomic sense? Should the EU focus on stability around low economic and productivity growth and increasing income inequality or change its economic, social and political trajectory? How can the EU deal with systemic crisis in counter cyclical manner? And so on and so forth. All of these, and many other, questions have their own immense merits BUT they were not part of the question, unless someone’s answer is that unless we address such big, community problems no industrial policy is possible (which is not untrue but also is not completely true).

A particularly good answer to the theoretical test needs not, and cannot, include all the above-mentioned points, that are general and broad, aiming to illustrate many different options. However, such answer should include the key steps of thinking: 1) identification of goals (it could be one goal related to one explicitly identified structural constrain of the Portuguese economy); 2) identification of a few policy instruments to achieve that goal, which are possible to utilise given the constrains imposed by the EU/Euro rules (it is always useful to think of policy instruments in relation to the business cycle); 3) if possible and necessary, identification of how industrial policy can help to increase the room of manoeuvre for policy, despite the EU/Euro rules – for example, if the policy tool requires public investment and subsidies, we need to explicitly mention how policy can mobilise the required public finances within the allowed budget deficit limits, if those limits cannot be changed (for example, elimination of redundant and unnecessary tax incentives for capital and high income groups, or relocation of resources from banking rescue packages to industrial policy), or how the industrial policy, itself, can be focused on producing more public revenue (see several examples of this in the notes above).