Executive Summary

A central challenge in tax policy is designing the system to raise a given revenue while minimizing economic distortions such as reduced labor supply or business activity. High capital taxation may, for example, conflict with industrial policy goals of promoting the emergence of new firms and the growth of existing firms. The distortive effect of high taxes must be balanced both against the need for revenues, and social policy goals of promoting equality.

There is fairly widespread agreement in economics that taxes on corporate profits reduce business investment and contribute to greater financial leverage. No similar consensus exists regarding the effect of capital taxation on business owners, especially regarding taxation of dividends. Several different schools of thought have been developed in this area of economics. Each tradition offers its own analysis and conclusions on the issue of taxes on corporate ownership.

According to the so-called traditional view, taxation of corporate owners reduces incentives to save and invest. The so-called new view arrives at the same conclusion with regard to capital gains taxation. The two schools come to different conclusions regarding dividend taxation. According to the new view dividend taxation on owners of mature firms does not affect the company's marginal cost of capital and investment behavior. The reason is that firms are assumed to finance marginal investments by means of retained earnings instead of issuing new equity. In most firms, retained earnings are very important for financing investments. Under the new view dividend taxes are still believed to dampen the activity of startups and rapidly growing firms.

The so-called open economy view reaches more far-reaching conclusions. The open economy view rests on the premise that

small open economies in which capital taxes reduce domestic capital supply can instead finance the intended investments by importing capital from abroad. If a country is too small to influence the global supply of capital and if capital is perfectly mobile across countries, investments will not be affected by capital taxes on residents. To the extent that taxes reduce Swedish investments it is assumed that this will be compensated by an equally or almost equally large inflow of investment from abroad. According to the open economy view neither dividend nor capital gains taxes have any effect on the level of investment, though they might drive ownership and returns abroad.

In Sweden, the latter two research traditions, which tend to view capital taxes as relatively unimportant for business activity, have had a dominant influence on tax policy. The conclusions drawn in these schools of thought have been routinely used as arguments for maintaining comparatively high taxes on ownership and startup activity (e.g., SOU 1995:104 and SOU 2002:52). In this report we review recent trends in theoretical and empirical research on capital taxation on individuals. Empirical studies which separately analyze the effect of taxes on different type of firms tend to find more consistent behavioral effects than did many previous studies. We argue that the evidence is of sufficient weight to support and renew the view that these taxes have economically significant effects on investments and capital allocation.

We question the empirical validity of the strong capital mobility assumption underlying the open economy view. Empirical research in international finance has demonstrated a home bias, i.e., a strong propensity to invest in one's home country. International capital is far from perfectly mobile across borders, which means that it may be problematic to assume that foreign capital can or will fully substitute for domestic capital. The causes of home bias are not fully understood. One explanation may be that local information costs and network effects give business owners an advantage when investing in their home market compared to investing abroad. Another problem with taxing domestic investors and relying on foreign capital to finance investments is that this shifts ownership and the return from investment abroad.

The result of theoretical models of capital taxation is highly sensitive to the assumptions made in the models. The three schools of thought mentioned above have relied on relatively simple black-box models of the inside of the firm, instead exclusively focusing

on taxes. A tax model that ignores one aspect of the economic reality will generally miss the potentially distortive effect of taxes on the aspect in question. In recent years more complex models of firm activity have produced different results than previous models.

A new school of thought, sometimes referred to as the agency view, has developed concerning dividend taxes. This view incorporates principal-agent problems between owners and management regarding dividends, and claims that when ownership and management are separated a conflict of interest emerges regarding the use of the firm's cash flow. Managers often have incentives to pay too low dividends to shareholders and instead overinvest in existing businesses, from which they enjoy private benefits. Dividend taxation exacerbates this already existing principal–agent problem. Taxes create a "wedge" between capital in mature firms with fewer investment opportunities and newer firms with less capital but better growth prospects. This misallocation of capital lowers economic efficiency, as the optimal outcome would be for the old firms to pay out excess capital as dividends to the owners, who in turn could allocate it towards firms offering better investment opportunities and greater growth potential.

Another line of research has tried to incorporate complexity relating to entrepreneurship to capital taxation. Innovative startups are increasingly dependent on venture capitalists that provide both external financing and complementary skills. Entrepreneurship is a unique activity characterized by relation-specific assets, conflicts of interest, low liquidity, weak cash flow in early stages and great uncertainty. This makes it particularly difficult to write contracts which cover all contingencies. In this framework, dividend taxes cause a distortion by reducing the return on effort toward mutual goals by both entrepreneurs and venture capitalists. As in the agency view, dividend taxes heighten any existing distortion caused by transaction costs. Another interesting angle on entrepreneurship that has been incorporated in models of dividend taxation is the occupational choice margin. Startups do not normally pay out dividends and are unaffected by the dividend tax directly. However, taxes on future dividends are incorporated into the value of the firm. Therefore, both dividend and capital gains taxes make it less lucrative to attempt to create a company rather than being employed.

In 2003, the United States significantly reduced the tax rate on dividends in a reform that is not believed to have been long

anticipated. This change in tax rates has been used as the source of exogenous variation in several empirical studies on dividend taxation. The studies have also increasingly tried to take into account firm heterogeneity and incorporate findings from the agency theory. It is believed that taxes affect mature and cash-constrained firms in different, even opposite ways. According to some agency view models, lower taxes on dividends result in lower investments by mature firms with strong cash flow, which instead increase dividend payouts. In turn this enables credit-constrained firms to increase their investments. Consequently, the effect of the tax cut on investments is not uniform. Mature firms may react differently to taxes than new entrepreneurial firms which rely on external capital. Similarly, small "mom-and-pop" businesses may differ significantly from high-tech startups in their economic response to taxes.

Our interpretation of the new empirical research is that taxes on ownership have economically significant effects on key aspects of firm activity. This includes innovative startup activity, the allocation of investments, capital structure and ownership structure. The findings on behavioral effects of taxes are more consistent than in the previous literature.

The Swedish system for taxing small businesses is based on the assumption that income comprises either capital gains or derives from work. In this framework, returns on for example employee or founder stock options are considered as labor income. Entrepreneurship has been assumed to be largely a type of labor. We argue that this division between capital and labor is economically questionable when discussing owner-managed firms. Economic models that consist of only two factors of production – capital and labor – are not sufficiently complex to account for the returns to entrepreneurship.

Entrepreneurs supply an inseparable bundle of effort, human capital and financial capital. As the company grows additional capital is created using existing capital and the entrepreneur's own effort. Since these factor supply decisions are largely inseparable, the return to entrepreneurship is extraordinarily difficult to neatly split between capital and labor. Employer behavior is generally more tax elastic than the employee's income. This is partially due to tax compliance and planning, but may in part also reflect a higher real elasticity that heretofore has been more or less invisible. In the classical framework of optimal taxation, higher tax

responsiveness can be viewed as an argument in favor of business activity being taxed at a lower rate than income from employment.

Innovation and firm growth generally requires the sustained collaboration of a number of distinct agents and competencies. This includes founders, financiers and key employees. As mentioned above, complex contracts are designed to facilitate cooperation and reduce conflicts of interest. In countries where the tax levels are low or moderate, a spectrum of option contracts are frequently used in agreements between founders, financiers and key employees of startups. Options are used to remunerate founders and key employees in cases where the company performs well. This is particularly valuable for startups at the beginning of their life cycle when they tend to have weak cash flow but high growth potential. In Sweden the tax rate on stock option gains of successful companies is about 67 percent, dampening the use of the option instrument by making it prohibitively expensive in many cases. Warrants are in theory taxed at a more favorable rate. In practice, however, due to the rules of the Swedish tax system, warrants can only be used effectively by buyout firms, not by innovative startups.

In the Swedish tax system several reforms have been implemented that have lowered effective taxation on business ownership and savings. Overall, the tax system has favored passive investment in existing assets over investment in or lending to startups and high-growth firms. This obviously may reduce entrepreneurial activity. Incentives to investment in startups and high growth firms are influenced not only by their own tax rate, but also by the tax rate on alternative uses of funds such as passive investments. Analogously, entrepreneurs with the best potential for success tend to have attractive alternate career options in incumbent firms, academia or government. High rates of entrepreneurship require that a sufficient pool of entrepreneurs and key employees can find it personally rewarding to assume risk and invest time and effort.

Another related issue which we discuss is that the tax system favors debt financing over equity financing. This increases the debt-equity ratio of firms and makes the economy more vulnerable, while penalizing early stage enterprises relative to mature companies. Moreover, it penalizes technological or human capital relative to physical capital and real estate.