

The Economic Opportunity Cost of Capital for Mexico – A Revised Empirical Update¹

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This document updates previous estimates of the opportunity cost of capital (EOCK) for Mexico, the rate of return that should be used to discount the stream of benefits and costs when calculating the present value for assessing investment projects financed with public funds. It also discusses the EOCK's main components (gross of taxes private return on producible capital, net of taxes real return on savings, and marginal cost of foreign borrowing), which measure the opportunity costs when the government increases the demand for funds to finance investment projects. The estimated medium-term average (2007 – 2011) return on private capital is 14 percent, the real return on savings is 2.4 percent, and the marginal cost of foreign borrowing is about 5.3 percent. Based on these costs, the recommended discount rate that should be used to assess investment projects is 10 percent per year. The estimated EOCK is relatively high and displays high persistence, reflecting the dynamic showed by the returns to private capital. Results are sensitive to assumptions about the share of labor income not recorded as *Compensation to Employees* in the national accounts, as well as to the *supply elasticity of foreign funds*.

¹ This report was prepared at the request of the Unidad de Inversiones within Subsecretaría de Egresos at Secretaría de Hacienda y Crédito Público in México (UI). It builds on and follows closely Rodríguez (2009), particularly regarding the discussion of methods for estimating the Mexican opportunity cost of capital. The report benefited from comments and discussions with Ms. Ursula Carreño, Ms. Anne-Laure Mascle-Allemand, and Mr. Luis Fernandez, all staff at the Unidad de Inversiones. The author is Senior Economist at the International Monetary Fund (IMF). The views expressed in this document are exclusively those of the author and do not necessarily represent those of the IMF or IMF policy or the UI or UI Policy. All remaining errors are the sole responsibility of the author. Comments and suggestions are welcome at srodriguez@imf.org.

I. Introduction

The economic opportunity cost of capital (EOCK) is the rate of return that reflects the best alternative use of scarce resources that could otherwise be used for investment or consumption. In other words, it reflects the time value of resources in an economy which allows assessing how much the economy is giving up in the future when using resources in the present.

In the tradition of cost-benefit analysis, assessing an investment project requires comparing the flow of benefits and costs that occur during the life of the project. For a project to be profitable for the economy, the present value of the benefits should exceed the present value of the costs when the economic opportunity cost of capital is used as the discount rate.

The economic opportunity cost of capital is a weighted average of the marginal productivity of capital, the time preference for consumption, and the marginal cost of foreign borrowing when the capital market is the marginal source of funds.² Conceptually, financing a new project increases the demand for funds and the interest rate in the domestic capital. A higher interest rate displaces private investment and promotes savings, domestic and foreign; for each unit of investment displaced the project will generate an economic cost equivalent to the gross return on investment in the private sector. By promoting savings the project displaces consumption, and generates an economic cost equivalent to the rate of time preference for consumption, captured by the net of taxes rate of return on savings. Similarly, by attracting foreign savings the project expands the country's foreign debt, which increases the cost of foreign borrowing on new and existing debt contracted at floating interest rates. The weighted average of these costs is the EOCK, where the weights are mainly determined by the elasticities of the demand for and supplies of funds, which capture the amount of resources displaced by the project.

This document updates previous estimates of the economic opportunity cost of capital for Mexico. In particular, it builds on the methodology and estimation discussed by Rodriguez

² There are alternative approaches for choosing the discount rate: the marginal productivity of capital in the private sector, the social rate of time preference for consumption with costs adjusted by the shadow price of investment, an accounting rate of interest, and the approach adopted here, the efficiency approach or the opportunity cost of funds obtained from the capital market. See Jenkins, Kuo, and Harberger (2011) for further discussion.

(2009), and expands the results in three important directions. The study revises the assumption about the participation of income from capital and labor in the national income, incorporates the economic cost from displaced consumption, and updates calculations up to 2011 to reflect the most recent data available, including national accounts.

The economic cost generated by the displacement of private investment is captured by the economic return to producible capital in the private sector (defined as the ratio of gross of taxes private capital income to the private producible capital stock); the economic cost from displaced consumption is approximated by an average real rate of return on government bonds; and the marginal cost of foreign borrowing is estimated as a proportion of the foreign borrowing cost faced by Mexico in the international capital markets.

For estimating the return on capital the study assumes that income from capital reported in the national accounts (the net operational surplus) includes between 50 percent and 60 percent of labor income. National account statistics sometimes report capital income that includes income from workers that do not receive an explicit payment, as may be the case for owners of small businesses. While this phenomenon is present in many countries, its severity varies across them. In particular for this exercise, when 50/55/60 percent of the reported capital income is assumed to be labor income, the implicit average labor share in the net national income is about 63/66/70 percent, which is broadly consistent with results for Mexico and other countries, as documented by Gollin (2002), Garcia - Verdu (2005), and Rodriguez (2009).

Also, instead of using the depreciation reported by the national accounts, which reflects more an accounting criteria than an economic concept, the study estimates the depreciation that results from assuming depreciation rates that vary with the type of capital. It is assumed annual depreciation rates of 2.5 percent for construction, and 8 percent for machinery; as discussed in Rodriguez (2009) moderately lower or higher depreciation rates have no significant effect in the estimated return to capital.

The estimated medium-term (2007-2011) average for the economic return on private producible capital, i.e. the marginal productivity of private capital, is about 14 percent when 55 percent of

the net operational surplus is attributable to income from labor. For the same period, the real net of taxes rate of return on savings is estimated at 2.4 percent per year, whereas the estimated marginal economic cost of foreign borrowing is about 5.9 percent per year (assuming the supply elasticity of foreign savings is equal to two).

The recommended discount rate the Mexican government should use to assess investment projects is 10 percent. While for reasonable assumptions the estimated medium term average EOCK is 10.4 percent per years, a rate of 10 percent not only falls within the realm of reasonable assumptions, but it is also easier to communicate to the public. It should be noted that under different scenarios the estimated average EOCK varies between 12.2 percent and 8.9 percent. The main source of the EOCK comes from displacing private investment (about 60 percent), which is highly productive; resources coming from incentivizing additional domestic and foreign savings are more or less equally important, about 20 percent each.

The estimated opportunity cost of capital is relatively high and displays high persistence - particularly compared with estimates for other economies, with such dynamic basically reflecting the dynamic showed by the return to private capital. While high and persistent returns may reflect attractive investment opportunities, they may also reflect higher risk across the board as well as frictions in the economy that prevent returns from coming down. This is certainly an issue that requires further research.

The magnitude of the estimated Mexican EOCK is similar to the values reported for South Africa, Argentina, and Uruguay, all in the vicinity of 11 percent, but higher than the EOCK estimated for Canada (7 percent), Colombia (8.5 percent), and Chile (8.5 percent), as reported by Jenkins (2003), Jenkins and Kuo (2010), Rodriguez (2007), and Marquez (2013).³ Results for Colombia reflect that about 80 percent of funding resources come from promoting domestic savings, and only about 10 percent come from displacing private investment; for Chile almost all

³ As of end 2013 actual rates of return used in Canada, Colombia and Chile were 8, 9, and 6 percent per year respectively. The rate of return used in Mexico was 12 percent.

funding resources come from increasing foreign savings (between 84 and 99 percent depending on the assumptions).

Over the medium term the discount rate should be updated to reflect developments in global capital markets as well as in the domestic economy, including the normalization in the rates of return on domestic and foreign savings and the effects of the reforms currently taking place in the Mexican economy.

The document is organized as follows. The second section describes the framework used as reference, followed by a brief description of the data. Section IV discusses the methods used to apply the framework as close as possible to the data available, particularly for estimating capital stocks and income from capital. The next section estimates the elements of the EOCK: return to private capital, return on savings, and marginal cost of foreign borrowing. Section VI presents the estimated results for the EOCK in Mexico, and Section VII concludes.

II. Theory

Estimation of the economic opportunity cost of public funds is based on the framework developed by Harberger (1972), Harberger (1976a and b), and Jenkins, Kuo, and Harberger (2011). This approach considers the capital market as the marginal source of funds when the government needs to finance a new project.

A new project increases the demand for funds and raises the interest rate. The increase in the market interest rate displaces investment and consumption, and promotes foreign savings. In the simplest case the economic opportunity cost of capital can be summarized as follows:

$$EOCK = \frac{-\eta_I \pi + \varepsilon_S \left(\frac{S}{I} \right) r + \varepsilon_{S^*} \left(\frac{S^*}{I} \right) \rho}{-\eta_I + \varepsilon_S \left(\frac{S}{I} \right) + \varepsilon_{S^*} \left(\frac{S^*}{I} \right)} \quad (1.1)$$

In equation (1.1) π , r , and ρ stand for the real return on private investment, the real return on savings net of personal income taxes, and the marginal cost of foreign borrowing, respectively; η_I , ε_s , and ε_{S^*} represent the demand elasticity of private investment, the supply elasticity of domestic private savings, and the supply elasticity of foreign savings, respectively; S stands for domestic private savings, S^* represents foreign savings, and I measures the domestic private investment in producible capital.

Equation (1.1) indicates that the EOCK is a weighted average of the real return received by savers, the return of investment in the private sector, and the marginal cost of foreign funds, where the weights are determined by the interest rate elasticity of private investment and domestic and foreign savings. This expression also assumes that, on average, all savers have the same rate of time preference and all investments observe the same rate of return; if this assumption is abandoned the definition of the EOCK does not change, although its computation does change. See Jenkins and Harberger (1999) for details.

Equation (1.1) will be estimated for the Mexican economy using the data available that most closely capture the theoretical parameters. The data, the estimation techniques, and the results are discussed in the sections that follow.

III. Data

The return to capital was estimated using data from the Mexican System of National Accounts for the economy as a whole, as well as for the private and public sectors, for base years 1980, 1993, and 2008 published by INEGI (Instituto Nacional de Estadística y Geografía). The database includes information on value added, income payments to labor and capital, such as Compensation to Employees (CE) and Gross of depreciation Operating Surplus (GOS), as well as on net indirect taxes associated with the production process; it also provides data on gross capital formation, i.e. gross fixed capital formation and variation in inventories, and on savings, foreign and domestic.⁴ Information on income taxes for corporations was obtained from different

⁴ The National Accounts data and methodologies are located at <http://www.inegi.org.mx>.

reports published by the Mexican Ministry of Finance.⁵ Variables are expressed in prices of 1980, using the GDP deflator.

For calculating the interest rate on savings data on nominal interest rates on different saving instruments were obtained from Banco de Mexico. The data includes the average cost of funds for commercial banks and interest rates on government bonds denominated in domestic currency in the domestic primary market. Nominal rates were converted into real rates using the consumer price index. For estimating the marginal cost of foreign funds information on the dollar interest rate on Mexican bonds was obtained from Bloomberg.

IV. The Capital Stock and the Income from Capital

This section discusses the inputs needed to calculate the return on private capital. It describes the methodology used to calculate the different concepts of capital stock, including the assumptions on depreciation rates, the value of land, and the treatment of inventory capital. It also discusses the approach used to determine the amount of labor income that the national accounts report as part of the capital income, i.e. the amount of labor income included in the net operational surplus.⁶

IV.1 Estimating capital stocks and inventories

Capital stock estimates span from 1970 to 2011 in real pesos of 1980; the implicit GDP deflator was used as price index. Capital in the economy is assumed to take the form of construction, machinery and equipment, inventories, and land; private construction could take the form of residential or housing and other constructions. Capital could be owned by the private or the public sector, except residential construction and land whose property is assumed to be exclusively private.⁷

⁵ See Informes sobre la Situación Económica, las Finanzas Públicas y la Deuda Pública <http://www.shcp.gob.mx>

⁶ Estimated capital stocks and capital income are available from the author upon request.

⁷ The concept of Private and Public Sector follows the definition used by the System of National Accounts (Sistema de Cuentas Nacionales, SNM). In particular, the public sector includes public entities that produce goods and/or services that are sold in the market such as Petróleos Mexicanos (PEMEX), Comisión Federal de Electricidad (CFE), Sistema de Transporte Colectivo (Metro), and Fondo de Cultura Económica (FCE), among others. For

(continued)

IV.1.1 Producible and Operational Capital

The producible capital is formed by goods that can be produced domestically or imported such as construction, machinery and equipment, and inventories. Non producible capital is represented by land; investments to improve land are considered part of the producible capital. In order to estimate the capital that directly participates in production activities –the operational capital, the residential capital is excluded from the producible capital.

For estimating the capital stock for the different components of Construction, and Machinery and Equipment, the perpetual inventory method was employed.⁸ It is assumed that depreciation rates are different for construction and machinery and equipment, but are the same in the private sector and the public sector; inventories and land do not depreciate. The assumed medium annual depreciation rate for construction is 2.5 percent; for machinery and equipment is 8 percent. Calculations were made assuming relatively lower and higher depreciation rates, with no significant impact on the results. The initial capital stock is calculated as discussed in Rodriguez (2009).

IV.1.2 The value of land

A complete measure of the capital stock in the economy requires an estimation of the value of land, particularly if the goal is to estimate the aggregate return to capital including the economic rent of this natural resource. If the focus is the return on producible capital, the return used to calculate the EOCK, an approximation for the value of land is not needed. In this case, the value of land is presented just to provide a more complete view of the value of assets generating value

further details see Sistema de Cuentas Nacionales de México, Cuentas por Sectores Institucionales, Fuentes y Metodologías at <http://www.inegi.org.mx/est/contenidos/proyectos/cn/spp/>.

⁸ Instead of using the depreciation reported in the national accounts, which reflects more an accounting criteria than an economic concept, the study estimates the depreciation assuming depreciation rates that vary with the type of capital.

in the economy.⁹ On a first approximation, it was assumed that the value of the land involved in production activities is proportional to the value of GDP. See Rodriguez (2009) for details.

IV.2. Estimating the distribution of income

Computing the rates of return on capital requires calculating the income received by each type of capital described in the previous section, which also implies calculating the income paid to labor. The basic data used for these calculations comes from the national accounts, which was adjusted as described below to obtain more precise economic measures of the functional distribution of income in the economy.

GDP could be estimated using the income approach by adding all payments made to the factors of production, capital, labor, and natural resources. However, the income from capital reported by the national accounts under the name of net operational surplus (NOS) does not reflect appropriately the economic concept needed to estimate the return to capital; to approximate the statistical measure with the economic concept at least two adjustments to the original data are required.¹⁰

First, the net operational surplus depends on the fixed capital consumption or depreciation reported by the national accounts, which not necessarily reflects the economic depreciation needed to estimate net capital stocks. In order to correct for such anomaly, the gross operational surplus (GOS) reported by the national accounts was reduced by the depreciation estimated according to the different rates of depreciation assumed for the different types of capital. The resulting net operational surplus (NOS) reflects more accurately the income from capital.

⁹ In the next section an estimate of the income from land will be needed in order to compute the income from producible capital, since the income from land is included in the national operational surplus (income from capital) reported in the national accounts.

¹⁰ GDP results from adding the income from labor or compensation to employees, the income from capital or the net operational surplus (NOS), the depreciation expenses, and the net indirect taxes. However, data on the net operational surplus or corporate profits are not consistently collected; also, the amount of depreciation reported reflects the depreciation from an accounting perspective or even the fiscal treatment of assets, but not the concept from an economic point of view. The relatively more reliable numbers are the compensation to employees and the net indirect taxes paid, as well as the value of the GDP. Therefore, given data on GDP, compensation on employees and net indirect taxes, the gross and net operational surplus are estimated as a residual.

Second, the concept “compensation to employees” includes only labor costs of workers formally employed; it does not include payments to self employed workers, family members that work but are not paid, or business’s owners that work but do not receive an explicit payment. Thus, part of the NOS represents income from labor.

The fact that the national accounts many times do not properly reflect the correct compensation to productive factors has been broadly documented in the literature. Gollin (2002), for instance, reports that for a sample of 94 countries the average employee compensation share (labor share) from national accounts is 47 percent of GDP. After adjusting national accounts data to properly capture labor income, he estimates that labor shares fluctuate between 65 percent and 75 percent of national income, depending on the adjustment method adopted. For Mexico, Garcia-Verdu (2005) reports that the labor share calculated using national accounts data was on average 34 percent for the period 1988 – 2001.¹¹ Using cross sectional household survey data with detailed information of income by source, he finds that average labor shares fluctuate between 58 percent and 73 percent during 1968 – 2002; labor shares vary between 58 percent and 70 percent during 1994 – 2002, a period with arguably more accurate data.

For the purpose of this work it appears reasonable to assume than labor shares for Mexico fluctuate between 60 and 70 percent, which is consistent with the Mexican experience revealed by household survey data, and broadly consistent with labor shares estimated for other countries. This assumption provides an anchor for determining the part of the NOS that could be considered as labor income. In particular, different shares of labor income within NOS are considered appropriate, as long as the implied labor income share in national income fluctuate around 60 and 70 percent.

With this background, the EOCK is estimated under three scenarios, assuming that the labor income included in the net operational surplus is 50 percent, 55 percent, or 60 percent (50/55/60

¹¹ The most recent national accounts data release (base 2008) reports an average labor share of 28 percent for the period 2003 – 2011, displaying a declining trend.

scenarios). It is also assumed that the net operational surplus of the public and private residential sectors entirely reflects income accruing to capital.

Tables 1.1, 1.2, and 1.3 display the implied functional distributions of income from 1970 to 2011 under the three scenarios indicated above. The implied average labor shares during 2000 – 2011 are 62.7 percent, 66 percent, and 69.2 percent if the assumed labor income in NOS is 50, 55, or 60 percent, respectively. These results are consistent with the evidence presented for Mexico by Garcia – Verdu (2005), as well as with evidence on labor and capital income shares for other countries.¹² The results also display a downward long term trend in labor shares, a feature also noted in the literature but not explored here; see, for instance, Karabarbounis and Neiman (2013).

Thus, in order to estimate the income from capital, first the estimated depreciation is deducted from the gross operational surplus reported in the national accounts, which results into the net operational surplus; afterwards, the net operational surplus is reduced by the share of labor income included in such surplus, which is assumed to be 0% for public assets and residential investment, and 50 percent, 55 percent, or 60 percent for all other types of producible capital.

Total capital income, however, includes income generated by land, since income from land is embedded in the private capital income. In order to obtain the income accruing to the capital that can actually be produced (producible capital), income from land should be deducted from total capital income. Following Harberger (1969), income from land is assumed to be one third of GDP in the agricultural sector.

Starting with income from producible capital, the income accruing to operational capital, e.g. income from capital directly involved in the production process, results after deducting the

¹² Under a more extreme assumption, a 65 percent adjustment to NOS implies a labor share of 73 percent, which could be considered as appropriate in light of the international empirical evidence on this variable, but it is certainly outside the range of results for Mexico reported by Garcia – Verdu (2005).

income from residential capital. Furthermore, if the income tax paid by incorporated enterprises is also deducted, then the remaining income represents the net income from operational capital.

Table 2 displays the most recent data on income tax revenues. On average, during 2002 – 2012 corporations have contributed with 46 percent of the income tax proceeds, while individuals have contributed with about 51 percent; the remaining amount comes from income tax paid by residents abroad. Over time, the share of income taxes paid by capital has been raising, from about 40 percent in the early 2000s to about 50 percent ten years later.¹³ The amount of income taxes paid is important for calculating the net of taxes rate of return, and provide a measure of the return actually received by the owners of capital once taxes have been paid, but it is not relevant for estimating the economic opportunity cost of capital; the amount of direct taxes paid by the owners of capital is already captured by the national accounts data.

Income from capital could also be calculated for private and public sector; note that by assuming that all corporate income taxes are collected from the private sector, the private sector net income is being under estimated, which will underestimate the net of taxes private returns on capital computed in the next section.

V. The Elements of the EOCK

V.1 Estimating rates of return on investment

The real rate of return on investment is calculated as the ratio of the income from capital to the capital stock. Thus, for the whole economy rates of return were calculated for total, producible, residential, and operational capital, as well as returns on operational capital net of income taxes. These rates represent the return from the perspective of the owner of assets once all indirect taxes net of subsidies have been paid.

¹³ Statistics on Income Tax Revenue report taxes on Corporations (Personas Morales), Individuals (Personas Físicas), Wages, Residents Overseas, and Other Corporations and Individuals. For calculating the income tax paid by Corporations Part of “Other Corporations and Individuals” was distributed proportionally between Corporations and Individuals. Income tax on labor includes income tax on individuals and wages.

Tables 3.1, 3.2, and 3.3 display rates of return for the economy when 50, 55, or 60 percent of NOS is considered labor income, respectively. As expected, rates of return are higher when the amount of assumed labor income in NOS is lower; for the last sample period (2000-2011) rates of return on producible capital are 9.3 percent, 8.5 percent, and 7.6 percent, under each of the NOS scenarios. Estimated rates of returns are highly persistent, i.e. rates of returns, particularly for producible capital, appear to be fluctuating around a long term value. Also, volatility seems to be higher in most recent years, especially at more disaggregated levels of capital.

Rates of return for the private sector are included in Tables 4.1, 4.2, and 4.3. In addition to share the characteristics described for the aggregate rates of return, private rates of return are substantially higher. Average producible capital rates of return for 2000 – 2011 are 13.4 percent, 12.1 percent, and 10.8 percent, when the share of NOS considered as labor income is 50, 55, or 60 percent, respectively. Returns are 4, 3.7, and 3.3 percentage points higher than the corresponding rates for the economy. These differences basically reflect the substantially lower rates of return gained by capital in the public sector, explained in part by capital that does not generate revenue in exchange for the services it provides to the public.

In order to estimate the return to capital from the perspective of the economy, rates of return should be calculated assuming that all taxes, including indirect taxes, are returned to the economy in the form of revenues for the government, i.e. income from capital should be computed gross of all taxes. Given that there is no data on the indirect taxes paid by labor and capital separately, this new measure of capital income is computed by distributing the amount of net indirect taxes proportionally to the importance of capital income in the net national income, i.e. the sum of income from capital and labor.

The economic returns to capital are presented in Tables 5.1, 5.2, and 5.3 for the aggregate economy and the private sector, for each scenario of labor income within NOS (50/55/60). In comparison with the returns perceived by the owners of capital, reported in Tables 3 and Tables 4, economic returns are higher, reflecting the indirect taxes assumed to be paid by capital. For the aggregate economy during 2000 – 2011, the average economic return on producible capital is 10.8 percent, 9.8 percent, and 8.8 percent, depending on the 50/55/60 assumption on NOS,

respectively; the comparable rates of return received by the owners of capital are 9.3 percent, 8.5 percent, and 7.6 percent, respectively. Indirect taxes represent about 1.5, 1.3, and 1.2 percentage points of the economic return to capital.

Estimated economic returns for the private sector producible capital, the economic opportunity cost of capital, are 15.5 percent, 14.1 percent, and 12.6 percent, under the 50/55/60 NOS scenarios calculated. These rates of return are compared with the 13.4 percent, 12.4 percent, and 10.9 percent, gross of income taxes, but before indirect rates are included (reported in Tables 4.1, 4.2 and 4.3); indirect taxes contribute to the economic opportunity cost of capital by 2.1, 1.7, and 1.7 percentage points under the 50/55/60 NOS scenarios.

V.2. Estimating the net of taxes return on domestic savings

For calculating the opportunity cost from displacing consumption requires to estimate the minimum rate of return that savers must receive before they are willing to postpone current consumption. If there is a personal income tax, savers must receive a higher interest rate to compensate the income taxes they will pay on the interest income from savings.

For approximating the minimum interest rate that savers receive a sample of interest rates on basic saving instruments was used, which includes short, medium and long term interest rate mostly on government bonds. First, a wide sample of instruments allows assessing better the individual rate of time preference, since focusing on the rate of a single instrument could be misleading as such rate may reflect also preference for liquidity or maturity term. Second, focusing on the return on government bonds provides a lower bound on the real rates, since interest income from government bonds is exempt from income tax. Third, longer term real rates on government bonds provide a lower bound on real interest rates, and prevent mistakenly assuming lower rates of time preference when in fact what it is being observed are inflation surprises, as it happened in Mexico in some years during the 70s, 80s, and 90s, particularly on short term instruments.

Table 6 displays calculated real interest rates on instruments denominated in Mexican pesos for the period they are available. Monthly nominal rates were used to calculate monthly real rates

using the consumer price index as deflator; real rates were annualized for each month, and the monthly average during the year is reported. While not for all saving instruments surveyed, negative real interest rates are mainly observed in the late 70s and early 80s, which may reflect inflation surprises rather than “negative” preference for consumption in the future. For addressing this anomaly, the negative values are dropped from the sample and replaced with the average real rate observed during the period. Afterwards, the average rate of return observed each year across instruments is assumed to be the minimum rate of return savers receive. Such average rate of return is used to measure the opportunity cost of displacing consumption. While this is an imperfect measure, it provides an approximation given data limitations on income from savings and income tax in interest income. Overall, the average real rate of return during 2000 – 2011 is 3.8 percent; average during 2007 – 2011 is 2.4 percent.

V.3. Estimating the marginal economic cost of foreign borrowing

The extra demand for funds that results from a new project increases the market interest rate, displacing investment and promoting domestic and foreign savings. In particular, the higher demand for foreign funds would increase the interest rate faced by the country in the international capital markets, which implies that the higher rate will be paid not only on the extra borrowing demanded by the project, but also on all the debt contracted by the country at variable interest rates. Therefore, for the economy as a whole, the economic cost of foreign borrowing is not given by the interest rate faced by the project, which represents the average cost of borrowing, but by the cost of funds faced by the project plus the extra cost generated on the existing debt, which represent the marginal cost of borrowing.

Provided that the country faces an upward sloping supply of foreign funds, the marginal economic cost of foreign funds is increasing and above the risk free interest rate. In fact, the marginal economic cost of foreign borrowing (MECFB) resembles the marginal cost faced by a monopsonist:

$$MECFB_t = i_t^F (1 - \tau_w) \left[1 + \phi \frac{1}{\varepsilon_S^*} \right] \quad (1.2)$$

Equation (1.2) indicates that the MECFB is determined by the average cost of funds, i^F , the withholding tax rate, τ_w , the proportion of foreign debt contracted at a variable interest rate, ϕ , and the elasticity of the supply of foreign funds, ε_{s^*} . Note that the proportional difference between the marginal and the average cost (net of withholding taxes) is positive and, assuming that ϕ is equal to one, it is just the inverse of the elasticity of the supply of funds, as displayed in equation (1.3).

$$\frac{MECFB_t - i_t^F (1 - \tau_w)}{i_t^F (1 - \tau_w)} = \frac{1}{\varepsilon_{s^*}} \quad (1.3)$$

Table 7 displays the basic data needed to estimate the contribution of the MECFB to the EOCK. In what follows the average cost of foreign borrowing will be assumed to be the rate paid by the Mexican government on dollar denominated bonds issued in the international capital market approximated by the JP Morgan EMBI+. The average cost of borrowing in foreign currency for the sample period for which data is available is 5.2 percent. The real interest rate on the 10-Year US Treasury bond is included as reference, which should be smaller than the average cost on Mexican US dollar denominated bonds. Table 7 also lists foreign savings as proportion of GDP as reported by the national accounts; the average proportion since 1998 is about 2.7 percent, but has fallen to 1.6 percent during 2000 – 2011.

The parameter value for the elasticity of foreign savings is subject to great variation. For Canada, Jenkins and Kuo (2010) assumed that the interest rate elasticity for the supply of foreign funds is 3. For Chile, Cartes, Contreras, and Cruz (2004) used an elasticity of 2.15 in a baseline scenario, while Rodriguez (2007) employed an elasticity of about 0.13 for Colombia.

Given the average cost (JP Morgan EMBI+), the marginal cost of foreign borrowing will be estimated assuming that the elasticity of the supply of foreign funds takes values of one, two, and three, the withholding tax rate is 10 percent, and the share of foreign debt at revisable rates is equal to one.

VI. The Economic Opportunity Cost of Capital (EOCK)

The economic opportunity cost of capital, defined in equation (1.1) could be expressed as:

$$EOCK = f_1\pi + f_2r + f_3\rho \quad (1.4)$$

$$f_1 = \frac{-\eta_I}{-\eta_I + \varepsilon_S \left(\frac{S}{I} \right) + \varepsilon_{S^*} \left(\frac{S^*}{I} \right)} \quad (1.5)$$

$$f_2 = \frac{\varepsilon_S \left(\frac{S}{I} \right)}{-\eta_I + \varepsilon_S \left(\frac{S}{I} \right) + \varepsilon_{S^*} \left(\frac{S^*}{I} \right)} \quad (1.6)$$

$$f_3 = \frac{\varepsilon_{S^*} \left(\frac{S^*}{I} \right)}{-\eta_I + \varepsilon_S \left(\frac{S}{I} \right) + \varepsilon_{S^*} \left(\frac{S^*}{I} \right)} \quad (1.7)$$

In equation (1.4) f_1 , f_2 , and f_3 are usually called “sourcing coefficients”, since they represent, respectively, the proportional source of displaced private investment, displaced consumption, and promoted foreign savings, that results when a new project needs to be financed. The “sourcing coefficients” must add up to one.

For estimating the sourcing coefficients, the elasticity of private investment demand is calculated by comparing the change in the private producible capital stock with changes in the rate of return, holding constant everything else including the amount of labor in the sector; See Rodriguez (2009) for further details. The implicit elasticity values are listed in Table 8, with average estimated elasticity between -1.8 and -1.5. While it could be argued that the estimated elasticity for Mexico is relatively large, such results are consistent with the extremely high

persistence in real rates of return and the relatively high volatility of investment volumes; i.e. small variations in the rate of return is associated with relatively large changes in investment.¹⁴

The elasticity of the domestic private supply of savings takes the value of 0.3, consistent with the empirical evidence on the topic. The elasticity of the foreign supply of savings is assumed to take values of 1, 2, and 3. Private domestic savings and foreign savings comes from the National Accounts; the assumed ratio of foreign savings to net private producible investment is 0.22, whereas the ratio of private domestic savings to net private producible investment is 1.6, reflecting the net negative savings position by the public sector. As reference, the ratio of total net investment to private net investment is about 1.3

Estimated EOCK, including sourcing coefficients, is reported in Table 9.1, 9.2, and 9.3 for each scenario on the amount of labor income included in NOS (50/55/60), and assuming that the elasticity of the supply of foreign savings is one. Results assuming a supply elasticity of foreign savings of 2 and 3 are presented in Tables 10 (1, 2, and 3) and Table 11 (1, 2, and 3), respectively. The results are mainly characterized by the following:

- a) The estimated opportunity cost of capital displays high persistence, with estimated values falling only marginally from the 1990s to the 2000s;
- b) The persistence in the economic opportunity cost of capital comes mainly from the persistence in the returns to private investment, which have barely changed during the last twenty years;
- c) The estimated opportunity cost is inversely related to the assumption about the labor income share in national income, the higher the labor share, the lower the return to private investment, and the lower the opportunity cost of capital;
- d) The opportunity cost of capital is positively related to the supply elasticity of foreign savings in the vicinity of the parameter values used; while a higher elasticity reduces the externality associated with borrowing abroad (the marginal cost gets closer to the average cost), it also

¹⁴ The assumed values in the studies for Canada, Chile, and Colombia are -1, between -0.7 and -1.4, and -0.05, respectively.

increases the weight on the marginal cost of foreign borrowing, with the later effect prevailing (the contribution of foreign borrowing costs to the opportunity cost of capital increases);

- e) A higher supply elasticity of foreign savings implies that the amount of foreign savings used to finance investment projects is larger (higher sourcing coefficient for foreign savings).

Table 12 summarizes the average values for the estimated opportunity cost of capital during the last 10 and 5 years of the sample, under different scenarios of labor income shares and supply elasticity of foreign funds. The medium-term average opportunity costs (2007 – 2011, last five years of the sample) ranges between 12.2 percent (labor share of 62.7 percent, and supply elasticity of one) and 8.9 percent (labor share of 62.7 percent and supply elasticity of 3); averages differ marginally when looking over a longer period (10 years), 12.4 percent and 9.1 percent, respectively.

An intermediate approach regarding assumptions on labor shares and supply elasticity of foreign funds would suggest an opportunity cost of capital of 10.4 percent, which assumes a labor share of 65.9 percent, and supply elasticity of foreign funds of 2. Such assumptions are supported by evidence on labor shares for Mexico and other countries, as well as on the supply elasticity of foreign funds used in similar studies (Canada and Chile).

A more pragmatic approach would suggest establishing the economic opportunity cost of capital for the Mexican economy at 10 percent, a rounded figure that not only falls within the realm of reasonable assumptions, but is also easier to communicate to the public; a rate of 10 percent is also within one standard deviation of the estimated opportunity cost of capital. For properly reflecting economic conditions, however, this rate of return would need to be revised over the medium term.

Table 12. Mexico: Economic Opportunity Cost of Capital

Labor Income in NOS 1/	Implied Labor Share in NNI 2/	Supply Elasticity of Foreign Savings		
		1	2	3
<i>Percent</i>		<i>Average, 2001 - 2011, in percent</i>		
50	62.7	12.4	11.7	11.1
55	65.9	11.2	10.6	10.0
60	69.2	10.1	9.6	9.1
		<i>Average, 2007 - 2011, in percent</i>		
50	62.7	12.2	11.5	10.9
55	65.9	11.1	10.4	9.9
60	69.2	9.9	9.4	8.9

Source: Own Calculations.

1/ NOS Stands for Net Operational Surplus

2/ NNI stands for Net National Income, with average values for 2001 - 2011

A discount rate of 10.4 percent implies sourcing coefficients of 64 percent for investment, 18 percent for domestic savings, and 17 percent for foreign borrowing as illustrated in the table below. These coefficients imply that when a new project is financed about 60 percent of resources come from displacing investment, 20 percent from displacing consumption, and 20 percent from additional foreign savings. Estimated sourcing coefficients vary between 58 percent and 72 percent for investment; 16 percent and 21 percent for domestic savings; and 9 and 25 percent for foreign savings. The relatively high weight on private investment is mainly explained by the estimated investment demand elasticity reported in Table 8.

Table 13. Mexico: Economic Opportunity Cost of Capital's Sourcing Coefficients

Labor Income in NOS 1/	Sourcing Coefficients on	Supply Elasticity of Foreign Savings		
		1	2	3
<i>Percent</i>		<i>Average, 2007 - 2011, in percent</i>		
50	Investment	72	66	61
	Domestic Saving	19	18	16
	Foreign Borrowing	9	16	23
55	Investment	70	64	59
	Domestic Saving	20	18	17
	Foreign Borrowing	9	17	24
60	Investment	69	63	58
	Domestic Saving	21	19	18
	Foreign Borrowing	10	18	25

Source: Own Calculations.

1/ NOS Stands for Net Operational Surplus

Over the medium term, the estimated opportunity cost most likely would need to be revised upwards. As rates of return on domestic and foreign savings come back to “normal” levels, for instance, to rates of return around 5 percent (levels observed during 2001 – 2005), the opportunity cost would be pushed up about 0.91 percentage points; for leaving the opportunity cost unchanged the return on private investment would need to fall by 1.41 percentage points, which is about 10 percent of the return on investment estimated in 2011, and would require an increase in real private investment of about 17 percent.¹⁵

Reductions in the return of private investment, however, occur only gradually and take years to materialize. For instance, during the reform period of the early 90s private rates of return fell about 0.6 percentage point from 1991 to 1994 (Table 10.2). Furthermore, important reductions in

¹⁵ Average real rate of return on domestic savings was 4.1 percent during 2001 – 2005; average marginal cost of foreign funds during the same period was 6.1 percent; assumed sourcing coefficients of 0.18 and 0.17 for domestic and foreign savings, respectively (see Table 10.2). The required change in the return on investment comes from dividing 0.91 by the investment sourcing coefficient (0.65), and the required change in investment is calculated assuming an elasticity of investment demand of -1.7.

the return on private investment have been associated with a substantial slowdown in economic activity (1976, 1983, 1986, 1995, 2001, and 2009), which suggest that going forward lower returns on private investment most probably would not fully compensate the upwards effects on the opportunity cost of capital coming from the normalization of the returns on domestic and foreign savings.

Overall, the dynamic of the opportunity cost would be determined by the balance between the demand for and supply of funds. Brighter economic perspectives, motivated for instance by economic reforms, could increase investment demand and the opportunity cost of capital; on the other hand, a larger supply of domestic savings, engineered through higher saving rates, better technology and practices in domestic financial markets, could bring the cost of capital down.¹⁶

VII. Conclusion and recommendations

In the tradition of cost – benefit analysis the opportunity cost of capital is the rate of return used to discount the stream of benefits and costs when calculating the present value for assessing investment projects. A project is profitable for the economy when the present value of the benefits is greater than the present value of the costs, when benefits and costs are discounted at the economic opportunity cost of capital.

The economic opportunity cost of capital is a weighted average of the marginal productivity of capital in the private sector, the time preference for consumption, and the marginal cost of foreign borrowing; the weights are determined by the elasticities of demand for and supplies of funds with respect to the interest rate. This approach assumes that the capital market is the marginal source of funds to finance projects, and is also known as the efficiency approach to determine the opportunity cost of capital.

This work updates previous estimates of the opportunity cost of capital for Mexico reported by Rodriguez (2009). It also revises the assumption about the participation of income from capital

¹⁶ While higher foreign savings could contribute to reduce the opportunity cost of capital, its effect is less clear, particularly at relatively high levels of current account deficits or foreign debt.

and labor in the national income, incorporates the economic cost from displaced consumption, and updates calculations up to 2011 to reflect the most recent data available.

The marginal productivity of capital, defined as the ratio of gross of taxes capital income to the producible capital stock, is estimated using national accounts data. For calculating capital income, the study assumes that the capital income reported by the national accounts (net operational surplus) includes between 50 and 60 percent of the labor income (specifically, 50/55/60 percent), which implies a functional distribution of income that is broadly consistent with findings for Mexico. Data on gross capital formation on construction, machinery and equipment, and inventories, as well as estimated land values, is used to build the series on capital stock employing the perpetual inventory method. Instead of using the depreciation values reported by the national accounts, which reflect more an accounting rather than an economic criterion, it was assumed that annual depreciation rates for construction and machinery are 2.5 percent and 8 percent, respectively.

The time preference for consumption is approximated by the net of taxes real rate of return on savings. Real returns were calculated for government bonds at different maturities –short, medium, and long-term, which approximates a net of taxes return given that interest income on these bonds is exempt from income tax; by using different maturities the approach captures an “average” rate of time preference, including a lower bound provided by the return on long term bonds.

The marginal cost of foreign borrowing, which resembles the marginal cost faced by a monopsonist, reflects the average cost of foreign borrowing (rates paid by the Mexican government in U.S. dollar denominated bonds issued in the international capital markets) approximated by the JP Morgan EMBI+; the average cost was adjusted to reflect a withholding tax rate (assumed to be 10 percent), and the supply elasticity of foreign funds that took values of one, two, and three based on elasticity values used in similar studies.

Over the medium term (average values during 2007 - 2011) the estimated annual return on private capital (marginal productivity of capital) is 14 percent (assuming that 55 percent of the

net operational surplus reflects labor income), the real return on savings is 2.4 percent per year, and the annual marginal cost of foreign borrowing (assuming a supply elasticity of foreign funds of 2) is 5.3 percent (the average cost of foreign borrowing for the period is 3.9 percent).

The recommended discount rate the Mexican government should use to assess investment projects is 10 percent. For assumptions supported by evidence on labor shares for Mexico and other countries, as well as on the supply elasticity of foreign funds used in similar studies (Canada and Chile), the estimated opportunity cost of capital is 10.4 percent (labor share of 65.9 percent, and supply elasticity of foreign funds of 2). A pragmatic approach would suggest establishing the economic opportunity cost of capital for the Mexican economy at 10 percent, a rounded figure that not only falls within the realm of reasonable assumptions, but is also easier to communicate to the public.

The estimated opportunity cost of capital is relatively high and displays high persistence - particularly compared with estimates for other economies, with such dynamic basically reflecting the performance of the return to private capital. While high and persistent returns may reflect attractive investment opportunities, they may also reflect higher risk across the board as well as frictions in the economy that prevent returns from coming down. This is certainly an issue that requires further research.

Over the medium term the discount rate should be updated to reflect developments in global capital markets as well as in the domestic economy, including the normalization in the rates of return on domestic and foreign savings and the effects of the reforms currently taking place in the Mexican economy. Updates should also take place as more accurate estimations of elasticity parameters become available.

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**Table 1.1 Implied Functional Distribution of Net National Income
50 percent of Net Operational Surplus (NOS) as income from labor
Millions of Mexican Pesos at prices of 1980**

Year	National Income	Income from		Income Share, %	
		Labor	Capital	Labor	Capital
1970	2,039	1,372	667	67.3	32.7
1971	2,115	1,419	696	67.1	32.9
1972	2,295	1,561	734	68.0	32.0
1973	2,478	1,673	805	67.5	32.5
1974	2,635	1,794	841	68.1	31.9
1975	2,752	1,907	845	69.3	30.7
1976	2,880	2,038	842	70.8	29.2
1977	2,950	2,065	885	70.0	30.0
1978	3,235	2,245	990	69.4	30.6
1979	3,506	2,448	1,059	69.8	30.2
1980	3,795	2,595	1,200	68.4	31.6
1981	4,143	2,865	1,278	69.1	30.9
1982	4,023	2,733	1,290	67.9	32.1
1983	3,879	2,391	1,487	61.7	38.3
1984	3,992	2,493	1,499	62.4	37.6
1985	4,031	2,594	1,437	64.4	35.6
1986	3,914	2,521	1,394	64.4	35.6
1987	3,900	2,486	1,414	63.7	36.3
1988	3,927	2,505	1,423	63.8	36.2
1989	4,098	2,563	1,535	62.5	37.5
1990	4,280	2,617	1,663	61.1	38.9
1991	4,428	2,767	1,661	62.5	37.5
1992	4,549	2,898	1,651	63.7	36.3
1993	4,597	2,960	1,637	64.4	35.6
1994	4,807	3,093	1,715	64.3	35.7
1995	4,499	2,740	1,759	60.9	39.1
1996	4,762	2,891	1,871	60.7	39.3
1997	5,067	3,130	1,937	61.8	38.2
1998	5,388	3,351	2,036	62.2	37.8
1999	5,589	3,519	2,070	63.0	37.0
2000	5,911	3,760	2,152	63.6	36.4
2001	5,855	3,784	2,071	64.6	35.4
2002	5,954	3,789	2,165	63.6	36.4
2003	5,971	3,800	2,171	63.6	36.4
2004	6,300	3,945	2,355	62.6	37.4
2005	6,516	4,070	2,446	62.5	37.5
2006	6,893	4,264	2,629	61.9	38.1
2007	7,108	4,396	2,712	61.8	38.2
2008	7,304	4,500	2,805	61.6	38.4
2009	6,752	4,256	2,496	63.0	37.0
2010	7,138	4,446	2,692	62.3	37.7
2011	7,485	4,622	2,863	61.8	38.2
Average					
1970 - 2011				64.6	35.4
1970 - 1979				68.7	31.3
1980 - 1989				64.8	35.2
1990 - 1999				62.5	37.5
2000 - 2011				62.7	37.3

Table 1.2 Implied Functional Distribution of Net National Income
55 percent of Net Operational Surplus (NOS) as income from labor
Millions of Mexican Pesos at prices of 1980

Year	National Income	Income from		Income Share, %	
		Labor	Capital	Labor	Capital
1970	2,039	1,425	614	69.9	30.1
1971	2,115	1,475	640	69.7	30.3
1972	2,295	1,620	675	70.6	29.4
1973	2,478	1,739	739	70.2	29.8
1974	2,635	1,863	772	70.7	29.3
1975	2,752	1,977	775	71.8	28.2
1976	2,880	2,109	771	73.2	26.8
1977	2,950	2,139	811	72.5	27.5
1978	3,235	2,328	907	72.0	28.0
1979	3,506	2,538	968	72.4	27.6
1980	3,795	2,694	1,101	71.0	29.0
1981	4,143	2,969	1,174	71.7	28.3
1982	4,023	2,836	1,187	70.5	29.5
1983	3,879	2,495	1,384	64.3	35.7
1984	3,992	2,604	1,387	65.2	34.8
1985	4,031	2,712	1,319	67.3	32.7
1986	3,914	2,637	1,277	67.4	32.6
1987	3,900	2,605	1,295	66.8	33.2
1988	3,927	2,629	1,299	66.9	33.1
1989	4,098	2,689	1,408	65.6	34.4
1990	4,280	2,747	1,533	64.2	35.8
1991	4,428	2,903	1,525	65.6	34.4
1992	4,549	3,034	1,515	66.7	33.3
1993	4,597	3,095	1,502	67.3	32.7
1994	4,807	3,231	1,576	67.2	32.8
1995	4,499	2,874	1,625	63.9	36.1
1996	4,762	3,043	1,720	63.9	36.1
1997	5,067	3,292	1,775	65.0	35.0
1998	5,388	3,523	1,865	65.4	34.6
1999	5,589	3,698	1,891	66.2	33.8
2000	5,911	3,950	1,961	66.8	33.2
2001	5,855	3,970	1,885	67.8	32.2
2002	5,954	3,974	1,980	66.8	33.2
2003	5,971	3,988	1,982	66.8	33.2
2004	6,300	4,148	2,152	65.8	34.2
2005	6,516	4,282	2,234	65.7	34.3
2006	6,893	4,490	2,403	65.1	34.9
2007	7,108	4,631	2,478	65.1	34.9
2008	7,304	4,741	2,564	64.9	35.1
2009	6,752	4,476	2,276	66.3	33.7
2010	7,138	4,683	2,455	65.6	34.4
2011	7,485	4,873	2,612	65.1	34.9
Average					
1970 - 2011				67.5	32.5
1970 - 1979				71.3	28.7
1980 - 1989				67.7	32.3
1990 - 1999				65.5	34.5
2000 - 2011				66.0	34.0

**Table 1.3 Implied Functional Distribution of Net National Income
60 percent of Net Operational Surplus (NOS) as income from labor
Millions of Mexican Pesos at prices of 1980**

Year	National Income	Income from		Income Share, %	
		Labor	Capital	Labor	Capital
1970	2,039	1,479	560	72.5	27.5
1971	2,115	1,531	585	72.4	27.6
1972	2,295	1,679	616	73.2	26.8
1973	2,478	1,804	674	72.8	27.2
1974	2,635	1,932	703	73.3	26.7
1975	2,752	2,047	705	74.4	25.6
1976	2,880	2,179	701	75.7	24.3
1977	2,950	2,212	738	75.0	25.0
1978	3,235	2,411	824	74.5	25.5
1979	3,506	2,628	878	75.0	25.0
1980	3,795	2,792	1,003	73.6	26.4
1981	4,143	3,073	1,070	74.2	25.8
1982	4,023	2,939	1,084	73.1	26.9
1983	3,879	2,598	1,281	67.0	33.0
1984	3,992	2,716	1,275	68.0	32.0
1985	4,031	2,831	1,200	70.2	29.8
1986	3,914	2,754	1,160	70.4	29.6
1987	3,900	2,724	1,176	69.8	30.2
1988	3,927	2,753	1,175	70.1	29.9
1989	4,098	2,816	1,282	68.7	31.3
1990	4,280	2,877	1,403	67.2	32.8
1991	4,428	3,039	1,389	68.6	31.4
1992	4,549	3,170	1,379	69.7	30.3
1993	4,597	3,230	1,367	70.3	29.7
1994	4,807	3,370	1,437	70.1	29.9
1995	4,499	3,007	1,492	66.8	33.2
1996	4,762	3,194	1,568	67.1	32.9
1997	5,067	3,454	1,613	68.2	31.8
1998	5,388	3,695	1,693	68.6	31.4
1999	5,589	3,877	1,712	69.4	30.6
2000	5,911	4,141	1,770	70.1	29.9
2001	5,855	4,156	1,699	71.0	29.0
2002	5,954	4,159	1,795	69.9	30.1
2003	5,971	4,177	1,794	70.0	30.0
2004	6,300	4,352	1,948	69.1	30.9
2005	6,516	4,494	2,022	69.0	31.0
2006	6,893	4,716	2,177	68.4	31.6
2007	7,108	4,865	2,243	68.4	31.6
2008	7,304	4,981	2,323	68.2	31.8
2009	6,752	4,696	2,056	69.6	30.4
2010	7,138	4,920	2,218	68.9	31.1
2011	7,485	5,124	2,361	68.5	31.5
Average					
1970 - 2011				70.5	29.5
1970 - 1979				73.9	26.1
1980 - 1989				70.5	29.5
1990 - 1999				68.6	31.4
2000 - 2011				69.2	30.8

Table 2. Income Tax Revenues on Corporations and Individuals

	Total 1/	Corporations 2/	Individuals 3/	Residents Overseas	On Wages	On Wages and Individuals
	Billions of Mexican Pesos at Current Prices			Shares		
2002	319	0.41	0.08	0.03	0.48	0.56
2003	337	0.40	0.06	0.03	0.51	0.57
2004	345	0.38	0.06	0.03	0.53	0.58
2005	384	0.45	0.04	0.04	0.48	0.51
2006	448	0.46	0.04	0.04	0.46	0.49
2007	527	0.50	0.03	0.04	0.42	0.46
2008	609	0.50	0.03	0.03	0.44	0.47
2009	595	0.49	0.03	0.04	0.44	0.48
2010	680	0.50	0.03	0.04	0.44	0.46
2011	760	0.50	0.02	0.03	0.44	0.47
2012	804	0.47	0.03	0.04	0.47	0.50

Source: SHCP Informes de la Situación Económica, las Finanzas Públicas y la Deuda Pública, and own calculations.

1/ From 2004 to 2007 includes Tax on Assets (Impuesto al Activo, IMPAC). Since 2008 includes Special Tax at Single Rate (IETU) and IMPAC. Since 2010 includes IETU, IMPAC, and Tax on Cash Deposits (IDE)

2/ Computed as the difference between Total Revenue and Revenue paid by Individuals, residents overseas, and income from wages.

3/ Tax Revenue under "Other Individuals and Corporations" was distributed proportionally between Individuals and Corporations.

Table 3.1 Economy Wide Real Rates of Return on Capital
50 percent of Net Operational Surplus (NOS) as income from labor

Rates of Return, annual percent					
Year	Total	Producible	Residential	Operational	Op. Net of Taxes
1970	8.6	9.3	9.0	9.4	8.4
1971	8.6	9.3	8.6	9.5	8.6
1972	8.6	9.5	8.4	9.8	8.8
1973	9.0	9.8	8.0	10.3	9.4
1974	8.8	9.7	6.6	10.6	9.6
1975	8.3	9.1	6.4	9.9	8.8
1976	7.9	8.5	6.0	9.3	8.3
1977	7.8	8.5	5.1	9.5	8.5
1978	8.2	9.0	5.6	10.1	8.9
1979	8.2	9.1	5.1	10.4	9.0
1980	8.6	9.8	5.7	11.1	9.6
1981	8.5	9.7	5.9	10.9	9.5
1982	8.3	9.5	5.3	10.7	9.9
1983	9.3	10.6	4.1	12.6	11.9
1984	9.1	10.2	3.6	12.2	11.4
1985	8.4	9.3	3.2	11.2	10.5
1986	8.1	8.8	2.7	10.7	9.9
1987	8.0	8.8	1.3	11.2	10.5
1988	7.9	8.7	1.9	10.9	9.9
1989	8.2	9.2	4.4	10.7	9.6
1990	8.6	9.7	5.5	11.0	10.0
1991	8.4	9.4	6.3	10.4	9.4
1992	8.1	9.1	6.6	9.9	8.8
1993	7.8	8.8	6.5	9.5	8.4
1994	7.9	9.0	6.7	9.7	8.7
1995	8.0	9.1	6.2	10.1	9.3
1996	8.3	9.3	5.8	10.5	9.8
1997	8.2	9.4	5.8	10.6	9.8
1998	8.4	9.6	6.1	10.8	9.9
1999	8.2	9.5	5.7	10.8	9.9
2000	8.2	9.6	5.5	11.0	10.0
2001	7.7	8.9	5.3	10.2	9.2
2002	7.9	9.1	5.1	10.6	9.6
2003	7.7	8.9	4.9	10.3	9.4
2004	8.1	9.4	4.6	11.1	10.3
2005	8.2	9.5	4.5	11.3	10.3
2006	8.5	9.9	4.4	11.9	10.8
2007	8.5	9.9	4.3	11.9	10.6
2008	8.5	9.9	4.2	11.9	10.6
2009	7.4	8.5	4.0	10.1	8.9
2010	7.8	9.0	4.0	10.7	9.4
2011	8.0	9.3	3.9	11.3	9.9
Average					
1970 - 2011	8.3	9.3	5.3	10.6	9.6
1970 - 1979	8.4	9.2	6.9	9.9	8.8
1980 - 1989	8.4	9.5	3.8	11.2	10.3
1990 - 1999	8.2	9.3	6.1	10.3	9.4
2000 - 2011	8.0	9.3	4.6	11.0	9.9
2007 - 2011	8.0	9.3	4.1	11.2	9.9

Table 3.2 Economy Wide Real Rates of Return on Capital
55 percent of Net Operational Surplus (NOS) as income from labor

Rates of Return, annual percent					
Year	Total	Producible	Residential	Operational	Op. Net of Taxes
1970	7.9	8.4	9.0	8.2	7.3
1971	7.9	8.4	8.6	8.4	7.5
1972	8.0	8.6	8.4	8.6	7.7
1973	8.2	8.9	8.0	9.1	8.2
1974	8.1	8.7	6.6	9.4	8.4
1975	7.7	8.2	6.4	8.7	7.6
1976	7.2	7.7	6.0	8.2	7.2
1977	7.2	7.7	5.1	8.5	7.4
1978	7.5	8.2	5.6	9.0	7.8
1979	7.5	8.3	5.1	9.2	7.9
1980	7.9	8.9	5.7	9.9	8.4
1981	7.8	8.9	5.9	9.7	8.4
1982	7.6	8.6	5.3	9.6	8.8
1983	8.7	9.8	4.1	11.5	10.8
1984	8.4	9.4	3.6	11.1	10.4
1985	7.7	8.5	3.2	10.1	9.3
1986	7.4	8.0	2.7	9.6	8.8
1987	7.3	8.0	1.3	10.1	9.5
1988	7.2	7.9	1.9	9.8	8.8
1989	7.6	8.4	4.4	9.6	8.6
1990	8.0	8.9	5.5	9.9	8.9
1991	7.7	8.5	6.3	9.3	8.3
1992	7.4	8.3	6.6	8.8	7.7
1993	7.2	8.0	6.5	8.5	7.4
1994	7.3	8.2	6.7	8.7	7.7
1995	7.4	8.3	6.2	9.1	8.3
1996	7.6	8.5	5.8	9.5	8.7
1997	7.5	8.5	5.8	9.5	8.6
1998	7.7	8.7	6.1	9.6	8.7
1999	7.5	8.6	5.7	9.6	8.7
2000	7.5	8.7	5.5	9.8	8.8
2001	7.0	8.1	5.3	9.0	8.1
2002	7.2	8.3	5.1	9.5	8.4
2003	7.0	8.1	4.9	9.2	8.3
2004	7.4	8.6	4.6	9.9	9.1
2005	7.5	8.7	4.5	10.2	9.2
2006	7.7	9.0	4.4	10.7	9.6
2007	7.7	9.0	4.3	10.7	9.4
2008	7.7	9.0	4.2	10.7	9.4
2009	6.8	7.7	4.0	9.1	7.9
2010	7.1	8.1	4.0	9.6	8.3
2011	7.3	8.5	3.9	10.1	8.8
Average					
1970 - 2011	7.6	8.5	5.3	9.5	8.5
1970 - 1979	7.7	8.3	6.9	8.7	7.7
1980 - 1989	7.8	8.6	3.8	10.1	9.2
1990 - 1999	7.5	8.5	6.1	9.2	8.3
2000 - 2011	7.3	8.5	4.6	9.9	8.8
2007 - 2011	7.3	8.5	4.1	10.0	8.7

**Table 3.3 Economy Wide Real Rates of Return on Capital
60 percent of Net Operational Surplus (NOS) as income from labor**

Rates of Return, annual percent					
Year	Total	Producible	Residential	Operational	Op. Net of Taxes
1970	7.2	7.5	9.0	7.1	6.2
1971	7.3	7.6	8.6	7.3	6.4
1972	7.3	7.7	8.4	7.5	6.5
1973	7.5	8.0	8.0	7.9	7.0
1974	7.4	7.8	6.6	8.2	7.2
1975	7.0	7.3	6.4	7.6	6.5
1976	6.5	6.9	6.0	7.1	6.1
1977	6.5	6.9	5.1	7.4	6.4
1978	6.8	7.3	5.6	7.8	6.6
1979	6.8	7.4	5.1	8.1	6.7
1980	7.2	8.0	5.7	8.7	7.3
1981	7.1	8.0	5.9	8.6	7.2
1982	7.0	7.8	5.3	8.6	7.7
1983	8.0	9.0	4.1	10.5	9.8
1984	7.7	8.5	3.6	10.0	9.3
1985	7.0	7.6	3.2	8.9	8.2
1986	6.7	7.2	2.7	8.5	7.8
1987	6.6	7.2	1.3	9.0	8.4
1988	6.5	7.1	1.9	8.7	7.7
1989	6.9	7.5	4.4	8.5	7.5
1990	7.3	8.0	5.5	8.8	7.8
1991	7.0	7.7	6.3	8.2	7.2
1992	6.7	7.5	6.6	7.8	6.7
1993	6.5	7.2	6.5	7.4	6.4
1994	6.6	7.4	6.7	7.6	6.6
1995	6.8	7.6	6.2	8.1	7.4
1996	6.9	7.7	5.8	8.4	7.6
1997	6.9	7.7	5.8	8.3	7.5
1998	6.9	7.9	6.1	8.5	7.6
1999	6.8	7.8	5.7	8.5	7.5
2000	6.8	7.8	5.5	8.6	7.6
2001	6.3	7.2	5.3	7.9	6.9
2002	6.5	7.5	5.1	8.3	7.3
2003	6.4	7.3	4.9	8.1	7.2
2004	6.7	7.7	4.6	8.8	8.0
2005	6.8	7.8	4.5	9.0	8.0
2006	7.0	8.1	4.4	9.5	8.4
2007	7.0	8.1	4.3	9.5	8.2
2008	7.0	8.1	4.2	9.5	8.2
2009	6.1	6.9	4.0	8.0	6.8
2010	6.4	7.3	4.0	8.5	7.2
2011	6.6	7.6	3.9	9.0	7.6
Average					
1970 - 2011	6.9	7.6	5.3	8.4	7.4
1970 - 1979	7.0	7.4	6.9	7.6	6.6
1980 - 1989	7.1	7.8	3.8	9.0	8.1
1990 - 1999	6.9	7.6	6.1	8.2	7.2
2000 - 2011	6.6	7.6	4.6	8.7	7.6
2007 - 2011	6.6	7.6	4.1	8.9	7.6

**Table 4.1 Private Sector Real Rates fo Return on Capital
50 percent of Net Operational Surplus (NOS) as income from labor**

Rates of Return, annual percent					
Year	Total	Producible	Residential	Operational	Op. Net of Taxes
1970	11.1	12.9	9.0	14.7	13.2
1971	11.0	12.8	8.6	14.7	13.3
1972	11.1	13.1	8.4	15.3	13.8
1973	11.5	13.7	8.0	16.4	14.9
1974	11.2	13.3	6.6	16.6	15.0
1975	10.8	12.8	6.4	16.0	14.1
1976	10.3	12.2	6.0	15.5	13.8
1977	10.1	11.9	5.1	15.5	13.7
1978	10.8	13.0	5.6	17.1	15.0
1979	10.9	13.4	5.1	18.0	15.5
1980	11.2	14.2	5.7	19.0	16.2
1981	11.3	14.4	5.9	19.2	16.6
1982	10.8	13.8	5.3	18.7	17.0
1983	10.4	12.9	4.1	18.0	16.7
1984	10.7	13.2	3.6	18.8	17.3
1985	10.8	13.2	3.2	19.1	17.7
1986	10.5	12.6	2.7	18.6	17.1
1987	10.1	12.1	1.3	18.8	17.5
1988	10.4	12.6	1.9	19.4	17.4
1989	10.9	13.4	4.4	19.0	16.9
1990	11.2	13.7	5.5	18.7	16.8
1991	11.5	14.1	6.3	19.0	17.1
1992	11.2	13.9	6.6	18.4	16.3
1993	10.8	13.3	6.5	17.5	15.5
1994	10.8	13.4	6.7	17.6	15.7
1995	10.3	12.6	6.2	16.6	15.2
1996	10.9	13.3	5.8	18.0	16.7
1997	11.1	13.6	5.8	18.4	16.9
1998	11.2	13.9	6.1	18.6	17.1
1999	11.1	13.9	5.7	18.7	17.1
2000	11.2	14.2	5.5	19.2	17.6
2001	10.7	13.4	5.3	18.1	16.5
2002	10.4	13.0	5.1	17.6	15.9
2003	10.3	12.8	4.9	17.6	16.0
2004	10.6	13.3	4.6	18.5	17.1
2005	10.7	13.5	4.5	18.9	17.2
2006	11.0	13.8	4.4	19.6	17.7
2007	11.0	13.9	4.3	19.7	17.5
2008	11.0	13.8	4.2	19.7	17.4
2009	10.1	12.4	4.0	17.7	15.6
2010	10.5	13.0	4.0	18.8	16.5
2011	10.8	13.4	3.9	19.6	17.2
Average					
1970 - 2011	10.8	13.3	5.3	18.0	16.2
1970 - 1979	10.9	12.9	6.9	16.0	14.2
1980 - 1989	10.7	13.2	3.8	18.9	17.0
1990 - 1999	11.0	13.6	6.1	18.1	16.4
2000 - 2011	10.7	13.4	4.6	18.7	16.9
2007 - 2011	10.7	13.3	4.1	19.1	16.8

**Table 4.2 Private Sector Real Rates of Return on Capital
55 percent of Net Operational Surplus (NOS) as income from labor**

Rates of Return, annual percent					
Year	Total	Producible	Residential	Operational	Op. Net of Taxes
1970	10.2	11.7	9.0	12.9	11.4
1971	10.1	11.5	8.6	12.9	11.6
1972	10.2	11.9	8.4	13.5	12.0
1973	10.5	12.4	8.0	14.5	13.0
1974	10.2	11.9	6.6	14.6	13.0
1975	9.8	11.5	6.4	14.1	12.2
1976	9.4	11.0	6.0	13.7	11.9
1977	9.2	10.7	5.1	13.7	11.9
1978	9.9	11.7	5.6	15.1	13.0
1979	9.9	12.1	5.1	15.9	13.4
1980	10.2	12.8	5.7	16.8	14.1
1981	10.3	13.0	5.9	17.0	14.4
1982	9.9	12.5	5.3	16.6	14.9
1983	9.5	11.6	4.1	16.0	14.6
1984	9.7	11.8	3.6	16.6	15.2
1985	9.8	11.8	3.2	16.9	15.5
1986	9.5	11.3	2.7	16.5	15.0
1987	9.1	10.8	1.3	16.6	15.4
1988	9.4	11.3	1.9	17.2	15.2
1989	10.0	12.1	4.4	16.9	14.8
1990	10.2	12.4	5.5	16.6	14.7
1991	10.5	12.8	6.3	16.8	15.0
1992	10.3	12.6	6.6	16.3	14.3
1993	9.9	12.1	6.5	15.6	13.6
1994	9.9	12.2	6.7	15.6	13.7
1995	9.5	11.5	6.2	14.8	13.4
1996	10.0	12.1	5.8	16.0	14.7
1997	10.1	12.4	5.8	16.4	14.9
1998	10.3	12.7	6.1	16.6	15.1
1999	10.2	12.6	5.7	16.7	15.1
2000	10.3	12.9	5.5	17.2	15.5
2001	9.8	12.2	5.3	16.2	14.5
2002	9.5	11.8	5.1	15.8	14.1
2003	9.4	11.7	4.9	15.7	14.1
2004	9.7	12.1	4.6	16.5	15.2
2005	9.8	12.2	4.5	16.9	15.2
2006	10.0	12.6	4.4	17.5	15.7
2007	10.0	12.6	4.3	17.7	15.5
2008	10.0	12.5	4.2	17.6	15.4
2009	9.2	11.3	4.0	15.8	13.8
2010	9.6	11.8	4.0	16.8	14.5
2011	9.8	12.2	3.9	17.5	15.1
Average					
1970 - 2011	9.9	12.0	5.3	16.0	14.2
1970 - 1979	9.9	11.6	6.9	14.1	12.3
1980 - 1989	9.7	11.9	3.8	16.7	14.9
1990 - 1999	10.1	12.3	6.1	16.1	14.5
2000 - 2011	9.8	12.1	4.6	16.8	14.9
2007 - 2011	9.7	12.1	4.1	17.1	14.8

**Table 4.3 Private Sector Real Rates fo Return on Capital
60 percent of Net Operational Surplus (NOS) as income from labor**

Rates of Return, annual percent					
Year	Total	Producible	Residential	Operational	Op. Net of Taxes
1970	9.3	10.5	9.0	11.1	9.6
1971	9.2	10.3	8.6	11.1	9.8
1972	9.2	10.6	8.4	11.7	10.1
1973	9.6	11.0	8.0	12.5	11.0
1974	9.3	10.6	6.6	12.6	11.0
1975	8.9	10.2	6.4	12.1	10.3
1976	8.6	9.8	6.0	11.8	10.0
1977	8.3	9.5	5.1	11.8	10.0
1978	8.9	10.4	5.6	13.0	10.9
1979	8.9	10.7	5.1	13.8	11.3
1980	9.3	11.4	5.7	14.6	11.9
1981	9.3	11.6	5.9	14.8	12.2
1982	8.9	11.1	5.3	14.5	12.8
1983	8.5	10.3	4.1	13.9	12.6
1984	8.8	10.5	3.6	14.5	13.0
1985	8.8	10.4	3.2	14.7	13.3
1986	8.6	9.9	2.7	14.4	12.8
1987	8.1	9.4	1.3	14.5	13.3
1988	8.4	10.0	1.9	15.0	13.0
1989	9.0	10.8	4.4	14.8	12.7
1990	9.2	11.1	5.5	14.5	12.6
1991	9.5	11.5	6.3	14.7	12.9
1992	9.3	11.3	6.6	14.3	12.2
1993	9.0	10.9	6.5	13.7	11.7
1994	9.0	11.0	6.7	13.7	11.8
1995	8.6	10.4	6.2	13.0	11.6
1996	9.1	10.9	5.8	14.1	12.8
1997	9.2	11.2	5.8	14.4	12.9
1998	9.3	11.4	6.1	14.6	13.1
1999	9.2	11.4	5.7	14.7	13.1
2000	9.3	11.6	5.5	15.2	13.5
2001	8.9	11.0	5.3	14.3	12.6
2002	8.6	10.6	5.1	13.9	12.2
2003	8.5	10.5	4.9	13.9	12.3
2004	8.8	10.9	4.6	14.6	13.2
2005	8.8	11.0	4.5	14.9	13.3
2006	9.0	11.3	4.4	15.5	13.6
2007	9.1	11.3	4.3	15.6	13.4
2008	9.0	11.2	4.2	15.6	13.3
2009	8.3	10.1	4.0	14.0	11.9
2010	8.6	10.6	4.0	14.8	12.5
2011	8.8	10.9	3.9	15.5	13.1
Average					
1970 - 2011	8.9	10.7	5.3	14.0	12.2
1970 - 1979	9.0	10.4	6.9	12.2	10.4
1980 - 1989	8.8	10.6	3.8	14.6	12.8
1990 - 1999	9.2	11.1	6.1	14.2	12.5
2000 - 2011	8.8	10.9	4.6	14.8	12.9
2007 - 2011	8.8	10.8	4.1	15.1	12.8

**Table 5.1 Economic Rates of Return: Aggregate and Private Sector
50 percent of Net Operational Surplus (NOS) as income from labor**

year	Aggregate Rates of Return, percent				Private Sector Rates of Return, percent			
	Total	Producible	Residencial	Operational	Total	Producible	Residencial	Operational
1970	9.3	10.2	9.9	10.2	12.1	14.2	9.9	16.1
1971	9.4	10.2	9.6	10.4	12.0	14.1	9.6	16.2
1972	9.5	10.5	9.5	10.7	12.1	14.5	9.5	16.9
1973	9.9	10.9	9.0	11.5	12.7	15.3	9.0	18.4
1974	9.8	10.8	7.5	11.8	12.4	15.0	7.5	18.7
1975	9.3	10.3	7.3	11.2	12.0	14.5	7.3	18.2
1976	8.8	9.7	6.8	10.6	11.6	14.0	6.8	17.8
1977	8.8	9.7	5.8	10.9	11.3	13.6	5.8	17.8
1978	9.2	10.2	6.2	11.4	12.1	14.8	6.2	19.4
1979	9.2	10.4	5.7	11.8	12.2	15.3	5.7	20.6
1980	9.7	11.2	6.3	12.7	12.6	16.1	6.3	21.6
1981	9.6	11.1	6.5	12.5	12.6	16.4	6.5	22.0
1982	9.6	11.1	5.7	12.7	12.3	15.9	5.7	21.8
1983	10.9	12.6	4.5	15.0	12.0	15.1	4.5	21.2
1984	10.5	12.0	3.8	14.5	12.1	15.1	3.8	21.6
1985	9.8	11.0	3.3	13.3	12.3	15.2	3.3	22.3
1986	9.3	10.3	2.8	12.7	12.0	14.6	2.8	21.8
1987	9.4	10.5	1.4	13.4	11.6	14.2	1.4	22.1
1988	9.0	10.1	2.0	12.7	11.8	14.5	2.0	22.4
1989	9.4	10.6	4.6	12.6	12.4	15.3	4.6	22.0
1990	9.8	11.1	5.8	12.8	12.4	15.3	5.8	21.3
1991	9.4	10.6	6.6	11.9	12.8	15.9	6.6	21.7
1992	9.1	10.4	6.9	11.5	12.6	15.8	6.9	21.2
1993	8.8	10.0	6.8	11.1	12.2	15.2	6.8	20.4
1994	8.9	10.2	7.0	11.3	12.2	15.2	7.0	20.4
1995	9.2	10.5	6.5	11.8	11.8	14.6	6.5	19.7
1996	9.5	10.8	6.0	12.5	12.6	15.5	6.0	21.4
1997	9.5	10.9	6.0	12.6	12.8	15.9	6.0	21.8
1998	9.5	11.0	6.3	12.6	12.8	16.0	6.3	21.7
1999	9.3	10.8	5.9	12.5	12.6	15.8	5.9	21.7
2000	9.4	11.1	5.8	12.9	12.9	16.4	5.8	22.6
2001	8.9	10.4	5.6	12.1	12.4	15.6	5.6	21.4
2002	9.0	10.5	5.4	12.3	11.9	14.9	5.4	20.5
2003	9.0	10.4	5.2	12.3	12.0	15.0	5.2	20.9
2004	9.2	10.8	4.9	12.9	12.2	15.3	4.9	21.5
2005	9.2	10.8	4.7	13.0	12.1	15.3	4.7	21.7
2006	9.7	11.4	4.6	13.8	12.5	15.9	4.6	22.7
2007	9.6	11.3	4.5	13.8	12.6	15.9	4.5	22.9
2008	9.9	11.6	4.4	14.2	12.9	16.2	4.4	23.6
2009	8.5	9.8	4.2	11.8	11.5	14.2	4.2	20.5
2010	9.0	10.4	4.2	12.7	12.2	15.2	4.2	22.2
2011	9.3	10.9	4.0	13.3	12.5	15.7	4.0	23.2
Average								
1970 - 2011	9.4	10.7	5.7	12.3	12.2	15.2	5.7	20.8
1970 - 1979	9.3	10.3	7.7	11.1	12.1	14.5	7.7	18.0
1980 - 1989	9.7	11.1	4.1	13.2	12.2	15.2	4.1	21.9
1990 - 1999	9.3	10.6	6.4	12.1	12.5	15.5	6.4	21.1
2000 - 2011	9.2	10.8	4.8	12.9	12.3	15.5	4.8	22.0
2007 - 2011	9.3	10.8	4.3	13.1	12.3	15.5	4.3	22.5

**Table 5.2 Economic Rates of Return: Aggregate and Private Sector
55 percent of Net Operational Surplus (NOS) as income from labor**

year	Aggregate Rates of Return, percent				Private Sector Rates of Return, percent			
	Total	Producible	Residencial	Operational	Total	Producible	Residencial	Operational
1970	8.6	9.2	9.9	9.0	11.1	12.8	9.9	14.2
1971	8.7	9.3	9.6	9.2	11.0	12.8	9.6	14.3
1972	8.7	9.5	9.5	9.5	11.1	13.2	9.5	14.9
1973	9.1	9.9	9.0	10.2	11.6	13.8	9.0	16.2
1974	9.0	9.8	7.5	10.5	11.4	13.5	7.5	16.5
1975	8.5	9.3	7.3	9.9	11.0	13.1	7.3	16.0
1976	8.1	8.8	6.8	9.4	10.6	12.6	6.8	15.7
1977	8.0	8.7	5.8	9.7	10.3	12.2	5.8	15.7
1978	8.4	9.2	6.2	10.2	11.0	13.3	6.2	17.2
1979	8.4	9.4	5.7	10.5	11.1	13.8	5.7	18.2
1980	8.9	10.2	6.3	11.4	11.5	14.6	6.3	19.2
1981	8.8	10.1	6.5	11.2	11.5	14.8	6.5	19.5
1982	8.8	10.1	5.7	11.5	11.2	14.4	5.7	19.4
1983	10.2	11.7	4.5	13.8	10.9	13.6	4.5	18.9
1984	9.8	11.1	3.8	13.2	11.0	13.5	3.8	19.2
1985	9.0	10.1	3.3	12.1	11.1	13.7	3.3	19.8
1986	8.5	9.4	2.8	11.4	10.9	13.1	2.8	19.4
1987	8.6	9.6	1.4	12.1	10.5	12.6	1.4	19.6
1988	8.2	9.2	2.0	11.5	10.7	13.0	2.0	19.9
1989	8.6	9.7	4.6	11.4	11.3	13.8	4.6	19.6
1990	9.0	10.2	5.8	11.6	11.3	13.9	5.8	19.0
1991	8.6	9.7	6.6	10.7	11.7	14.5	6.6	19.3
1992	8.4	9.4	6.9	10.3	11.6	14.3	6.9	18.9
1993	8.1	9.1	6.8	9.9	11.2	13.8	6.8	18.2
1994	8.2	9.3	7.0	10.1	11.2	13.9	7.0	18.2
1995	8.5	9.6	6.5	10.7	10.9	13.3	6.5	17.6
1996	8.8	9.9	6.0	11.2	11.5	14.1	6.0	19.2
1997	8.7	9.9	6.0	11.3	11.7	14.4	6.0	19.6
1998	8.7	10.0	6.3	11.3	11.7	14.5	6.3	19.5
1999	8.5	9.9	5.9	11.2	11.5	14.4	5.9	19.4
2000	8.6	10.1	5.8	11.6	11.8	14.9	5.8	20.2
2001	8.1	9.4	5.6	10.8	11.3	14.2	5.6	19.2
2002	8.2	9.6	5.4	11.0	10.9	13.6	5.4	18.4
2003	8.2	9.5	5.2	11.0	10.9	13.6	5.2	18.7
2004	8.4	9.8	4.9	11.6	11.1	13.9	4.9	19.3
2005	8.4	9.9	4.7	11.7	11.1	13.9	4.7	19.5
2006	8.8	10.3	4.6	12.4	11.4	14.4	4.6	20.4
2007	8.8	10.3	4.5	12.4	11.5	14.5	4.5	20.6
2008	9.0	10.6	4.4	12.8	11.7	14.7	4.4	21.2
2009	7.7	8.9	4.2	10.5	10.5	12.9	4.2	18.4
2010	8.2	9.5	4.2	11.4	11.1	13.8	4.2	19.9
2011	8.5	9.9	4.0	12.0	11.4	14.3	4.0	20.8
Average								
1970 - 2011	8.6	9.7	5.7	11.1	11.2	13.8	5.7	18.5
1970 - 1979	8.5	9.3	7.7	9.8	11.0	13.1	7.7	15.9
1980 - 1989	8.9	10.1	4.1	12.0	11.0	13.7	4.1	19.5
1990 - 1999	8.5	9.7	6.4	10.8	11.4	14.1	6.4	18.9
2000 - 2011	8.4	9.8	4.8	11.6	11.2	14.1	4.8	19.7
2007 - 2011	8.5	9.8	4.3	11.8	11.2	14.0	4.3	20.2

**Table 5.3 Economic Rates of Return: Aggregate and Private Sector
60 percent of Net Operational Surplus (NOS) as income from labor**

year	Aggregate Rates of Return, percent				Private Sector Rates of Return, percent			
	Total	Producible	Residencial	Operational	Total	Producible	Residencial	Operational
1970	7.8	8.3	9.9	7.8	10.1	11.5	9.9	12.2
1971	7.9	8.4	9.6	8.0	10.1	11.5	9.6	12.3
1972	7.9	8.5	9.5	8.3	10.1	11.8	9.5	12.9
1973	8.2	8.9	9.0	8.8	10.6	12.4	9.0	14.0
1974	8.2	8.8	7.5	9.2	10.3	12.0	7.5	14.3
1975	7.7	8.3	7.3	8.6	10.0	11.6	7.3	13.9
1976	7.3	7.8	6.8	8.1	9.6	11.2	6.8	13.6
1977	7.3	7.8	5.8	8.5	9.3	10.9	5.8	13.6
1978	7.6	8.3	6.2	8.9	10.0	11.8	6.2	14.9
1979	7.6	8.4	5.7	9.2	10.0	12.3	5.7	15.9
1980	8.1	9.2	6.3	10.1	10.4	13.0	6.3	16.7
1981	8.0	9.1	6.5	9.9	10.4	13.2	6.5	17.0
1982	8.0	9.2	5.7	10.2	10.1	12.9	5.7	17.0
1983	9.4	10.7	4.5	12.6	9.8	12.1	4.5	16.5
1984	9.0	10.1	3.8	12.0	9.9	12.0	3.8	16.8
1985	8.2	9.1	3.3	10.8	10.0	12.1	3.3	17.3
1986	7.8	8.5	2.8	10.2	9.8	11.6	2.8	16.9
1987	7.8	8.6	1.4	10.9	9.3	11.1	1.4	17.2
1988	7.5	8.2	2.0	10.2	9.6	11.5	2.0	17.5
1989	7.9	8.8	4.6	10.1	10.2	12.4	4.6	17.3
1990	8.3	9.3	5.8	10.4	10.3	12.5	5.8	16.6
1991	7.9	8.8	6.6	9.5	10.6	13.0	6.6	16.9
1992	7.6	8.5	6.9	9.1	10.5	12.9	6.9	16.6
1993	7.4	8.2	6.8	8.7	10.2	12.5	6.8	16.0
1994	7.5	8.4	7.0	8.9	10.2	12.6	7.0	16.0
1995	7.8	8.8	6.5	9.6	9.9	12.0	6.5	15.5
1996	8.0	9.0	6.0	10.0	10.5	12.7	6.0	16.9
1997	7.9	9.0	6.0	10.0	10.6	13.0	6.0	17.3
1998	7.9	9.0	6.3	10.0	10.6	13.1	6.3	17.2
1999	7.7	8.9	5.9	9.9	10.5	13.0	5.9	17.2
2000	7.8	9.0	5.8	10.2	10.7	13.4	5.8	17.9
2001	7.3	8.5	5.6	9.5	10.2	12.8	5.6	17.0
2002	7.5	8.6	5.4	9.8	9.8	12.2	5.4	16.3
2003	7.4	8.5	5.2	9.7	9.9	12.3	5.2	16.6
2004	7.6	8.8	4.9	10.3	10.0	12.5	4.9	17.1
2005	7.6	8.9	4.7	10.4	10.0	12.5	4.7	17.3
2006	8.0	9.3	4.6	11.0	10.3	13.0	4.6	18.1
2007	8.0	9.3	4.5	11.0	10.3	13.0	4.5	18.2
2008	8.2	9.5	4.4	11.4	10.6	13.3	4.4	18.8
2009	7.0	8.0	4.2	9.3	9.5	11.6	4.2	16.3
2010	7.4	8.5	4.2	10.1	10.0	12.4	4.2	17.6
2011	7.7	8.9	4.0	10.6	10.3	12.8	4.0	18.4
Average								
1970 - 2011	7.8	8.8	5.7	9.8	10.1	12.3	5.7	16.3
1970 - 1979	7.8	8.3	7.7	8.5	10.0	11.7	7.7	13.8
1980 - 1989	8.2	9.2	4.1	10.7	9.9	12.2	4.1	17.0
1990 - 1999	7.8	8.8	6.4	9.6	10.4	12.7	6.4	16.6
2000 - 2011	7.6	8.8	4.8	10.3	10.1	12.6	4.8	17.4
2007 - 2011	7.7	8.8	4.3	10.5	10.1	12.6	4.3	17.9

Table 6. Real Interest Rates on Saving Instruments denominated in Mexican Pesos
Annual Returns in Percent

Year	T - Bills		Average Fundig Cost for		Inflation Protected Government Bonds (UDIBONOS)					Average
	90 Days	1 - Year	Banks	Government	3 - Year	5 - Year	10 - Year	20 - Year	30 - Year	
1978	-4.3									-4.3
1979	-2.9									-2.9
1980	-3.0									-3.0
1981	5.6									5.6
1982	-19.6									-19.6
1983	0.9									0.9
1984	2.8									2.8
1985	15.5									15.5
1986	17.9									17.9
1987	4.6									4.6
1988	20.8									20.8
1989	30.3									30.3
1990	9.5	-8.8								0.4
1991	2.7	2.6								2.7
1992	4.7	5.0								4.8
1993	8.0	8.1								8.1
1994	8.1	7.2								7.6
1995	6.3	2.5								4.4
1996	8.6	10.3			7.8					8.9
1997	6.8	8.1			6.3	6.3				6.9
1998	9.5	7.9	8.2	6.6	7.0	7.0				7.7
1999	11.2	13.2	11.3	9.5		7.9	6.9			10.0
2000	7.8	8.6	7.8	6.9		6.9	6.7			7.5
2001	8.3	10.0	8.0	7.1			6.6			8.0
2002	1.9	3.1	1.7	1.5			5.5			2.7
2003	2.7	3.6	2.3	2.1			4.6			3.1
2004	2.1	2.8	1.8	1.6			4.8			2.6
2005	6.3	6.2	6.2	5.9			4.9			5.9
2006	3.4	3.7	3.4	3.2			4.2	4.3	4.4	3.8
2007	3.8	4.0	3.7	3.5	3.4		3.6	3.6	3.6	3.7
2008	1.6	1.8	1.5	1.4	3.5		4.0	3.8	4.2	2.7
2009	2.1	2.4	2.2	2.1	2.5		3.8		4.4	2.8
2010	0.4	0.7	0.4	0.4	1.5		2.8		3.7	1.4
2011	0.7	1.1	0.9	0.8	1.5		2.6		3.9	1.6
2012	0.9	1.2	1.1	1.1	1.0		2.0		3.1	1.5
2013	1.1	1.2	1.3	1.3	0.9		1.7		3.0	1.5
Average										
Full Sample	5.2	4.4	3.9	3.4	3.5	7.0	4.3	3.9	3.8	4.4
2000 - 2013	3.1	3.6	3.0	2.8	2.0	6.9	4.1	3.9	3.8	3.5
2000 - 2011	3.4	4.0	3.3	3.1	2.5	6.9	4.5	3.9	4.0	3.8
2007 - 2011	1.7	2.0	1.7	1.7	2.5	--	3.4	3.7	4.0	2.4

Source: Banco de Mexico and own calculations

Table 7. Real Interest Rates on US Dollar Denominated Instruments and Foreign Savings in Mexico

Year	US T Bill 10 Years	JPM EMBI+ Mexico	Foreign Savings		Millions of Pesos, Prices 1980
			Relative to Private Net Investment	Relative to GDP	
In Percent					
1988	5.2		14.5	1.3	64.6
1989	4.4		27.7	2.8	141.5
1990	4.7		28.4	3.0	159.0
1991	4.4		43.8	5.1	279.4
1992	4.6		57.1	7.4	416.7
1993	3.4		56.1	6.6	370.9
1994	4.9		70.9	7.7	455.2
1995	4.4		6.8	0.6	32.8
1996	4.5		6.1	0.8	46.0
1997	4.6	8.0	13.6	2.1	132.3
1998	4.1	9.9	26.6	4.3	279.7
1999	4.1	9.9	20.8	3.2	218.2
2000	3.7	7.2	23.4	3.6	257.6
2001	2.7	6.2	25.6	3.2	229.3
2002	3.0	6.1	21.1	2.3	166.5
2003	2.0	4.4	14.3	1.5	107.1
2004	1.5	3.4	8.5	0.9	71.3
2005	1.0	2.7	7.7	0.8	64.5
2006	1.7	3.0	6.7	0.8	65.0
2007	1.9	3.2	13.1	1.5	132.9
2008	1.7	4.3	18.3	2.1	182.1
2009	2.4	5.5	8.4	0.8	66.6
2010	2.0	3.9	2.6	0.2	20.2
2011	0.8	2.8	10.0	1.0	89.4
Average					
1988 - 2011	3.2	5.2	22.2	2.7	
2000 - 2011	2.0	4.4	13.3	1.6	
2007 - 2011	1.8	3.9	10.5	1.1	

Source: Calculated with data from Bloomberg, the US Federal Reserve, Banco de Mexico, and INEGI National Accounts.

Table 8. Estimated Interest Rate Elasticity of Private Investment Demand

Year	Percent of Net Operational Surplus (NOS) as income from labor		
	50	55	60
1970	-1.6	-1.5	-1.4
1971	-1.6	-1.5	-1.4
1972	-1.6	-1.5	-1.4
1973	-1.6	-1.5	-1.4
1974	-1.6	-1.5	-1.4
1975	-1.5	-1.5	-1.4
1976	-1.5	-1.4	-1.4
1977	-1.5	-1.5	-1.4
1978	-1.6	-1.5	-1.4
1979	-1.5	-1.5	-1.4
1980	-1.6	-1.5	-1.4
1981	-1.5	-1.5	-1.4
1982	-1.6	-1.5	-1.4
1983	-1.6	-1.5	-1.5
1984	-1.7	-1.6	-1.5
1985	-1.7	-1.6	-1.5
1986	-1.7	-1.6	-1.5
1987	-1.7	-1.5	-1.5
1988	-1.7	-1.6	-1.5
1989	-1.7	-1.6	-1.5
1990	-1.8	-1.6	-1.5
1991	-1.8	-1.6	-1.6
1992	-1.7	-1.6	-1.5
1993	-1.7	-1.6	-1.5
1994	-1.7	-1.6	-1.5
1995	-1.8	-1.7	-1.6
1996	-1.8	-1.7	-1.6
1997	-1.8	-1.7	-1.6
1998	-1.8	-1.7	-1.6
1999	-1.8	-1.7	-1.6
2000	-1.8	-1.6	-1.6
2001	-1.7	-1.6	-1.5
2002	-1.7	-1.6	-1.5
2003	-1.8	-1.7	-1.6
2004	-1.8	-1.7	-1.6
2005	-1.8	-1.7	-1.6
2006	-1.8	-1.7	-1.6
2007	-1.8	-1.7	-1.6
2008	-1.8	-1.7	-1.6
2009	-1.8	-1.7	-1.6
2010	-1.8	-1.7	-1.6
2011	-1.8	-1.7	-1.6
Average			
1970 - 2011	-1.7	-1.6	-1.5
1970 - 1979	-1.6	-1.5	-1.4
1980 - 1989	-1.6	-1.5	-1.5
1990 - 1999	-1.8	-1.6	-1.6
2000 - 2011	-1.8	-1.7	-1.6

Table 9.1 Economic Opportunity Cost of Capital (EOCK), annual percent
50 percent of Net Operational Surplus (NOS) as income from labor
Elasticity of domestic savings, 0.3; elasticity of foreign savings, 1

Year	EOCK	Return on Investment	Return on Savings	Cost of Foreign Borrowing	Weight on Return on Investment	Weight on Return on Savings	Weight on Cost of Foreign Borrowing
1970	11.8	14.2	4.8	9.3	0.70	0.21	0.10
1971	11.7	14.1	4.8	9.3	0.70	0.21	0.10
1972	12.0	14.5	4.8	9.3	0.69	0.21	0.10
1973	12.5	15.3	4.8	9.3	0.70	0.21	0.10
1974	12.3	15.0	4.8	9.3	0.69	0.21	0.10
1975	11.9	14.5	4.8	9.3	0.69	0.21	0.10
1976	11.5	14.0	4.8	9.3	0.68	0.22	0.10
1977	11.3	13.6	4.8	9.3	0.69	0.22	0.10
1978	12.1	14.8	4.8	9.3	0.69	0.21	0.10
1979	12.5	15.3	4.8	9.3	0.69	0.21	0.10
1980	13.0	16.1	4.8	9.3	0.69	0.21	0.10
1981	13.1	16.4	4.5	9.3	0.69	0.21	0.10
1982	12.9	15.9	4.8	9.3	0.69	0.21	0.10
1983	12.1	15.1	3.3	9.3	0.70	0.21	0.09
1984	12.2	15.1	3.8	9.3	0.70	0.20	0.09
1985	13.0	15.2	6.9	9.3	0.70	0.20	0.09
1986	12.7	14.6	7.5	9.3	0.70	0.20	0.09
1987	11.7	14.2	4.2	9.3	0.70	0.20	0.09
1988	12.8	14.5	8.3	9.3	0.71	0.20	0.09
1989	13.8	15.3	10.6	9.3	0.71	0.20	0.09
1990	12.9	15.3	5.5	9.3	0.72	0.19	0.09
1991	12.8	15.9	3.2	9.3	0.72	0.19	0.09
1992	12.9	15.8	4.2	9.3	0.71	0.20	0.09
1993	12.8	15.2	5.9	9.3	0.71	0.20	0.09
1994	12.8	15.2	5.6	9.3	0.71	0.20	0.09
1995	12.0	14.6	4.0	9.3	0.72	0.19	0.09
1996	13.3	15.5	6.8	9.3	0.72	0.19	0.09
1997	13.8	15.9	5.8	14.3	0.72	0.19	0.09
1998	14.5	16.0	7.7	17.8	0.72	0.19	0.09
1999	14.9	15.8	10.0	17.9	0.72	0.19	0.09
2000	14.3	16.4	7.5	13.0	0.71	0.20	0.09
2001	13.7	15.6	8.0	11.1	0.71	0.20	0.09
2002	12.2	14.9	2.7	11.0	0.71	0.20	0.09
2003	12.0	15.0	3.1	7.9	0.72	0.19	0.09
2004	12.0	15.3	2.6	6.1	0.72	0.19	0.09
2005	12.5	15.3	5.9	4.8	0.72	0.19	0.09
2006	12.6	15.9	3.8	5.5	0.72	0.19	0.09
2007	12.6	15.9	3.7	5.7	0.72	0.19	0.09
2008	12.9	16.2	2.7	7.7	0.72	0.19	0.09
2009	11.6	14.2	2.8	9.9	0.72	0.19	0.09
2010	11.8	15.2	1.4	7.1	0.72	0.19	0.09
2011	12.1	15.7	1.6	5.1	0.72	0.19	0.09
Average							
1970 - 2011	12.6	15.2	5.0	9.4	0.71	0.20	0.09
1970 - 1979	12.0	14.5	4.8	9.3	0.69	0.21	0.10
1980 - 1989	12.7	15.2	5.9	9.3	0.70	0.21	0.09
1990 - 1999	13.3	15.5	5.9	11.5	0.71	0.20	0.09
2000 - 2011	12.5	15.5	3.8	7.9	0.72	0.19	0.09
2007 - 2011	12.2	15.5	2.4	7.1	0.72	0.19	0.09

Table 9.2 Economic Opportunity Cost of Capital (EOCK), annual percent
55 percent of Net Operational Surplus (NOS) as income from labor
Elasticity of domestic savings, 0.3; elasticity of foreign savings, 1

Year	EOCK	Return on Investment	Return on Savings	Cost of Foreign Borrowing	Weight on Return on Investment	Weight on Return on Savings	Weight on Cost of Foreign Borrowing
1970	10.8	12.8	4.8	9.3	0.68	0.22	0.10
1971	10.7	12.8	4.8	9.3	0.68	0.22	0.10
1972	11.0	13.2	4.8	9.3	0.68	0.22	0.10
1973	11.4	13.8	4.8	9.3	0.68	0.22	0.10
1974	11.2	13.5	4.8	9.3	0.68	0.22	0.10
1975	10.8	13.1	4.8	9.3	0.68	0.22	0.10
1976	10.5	12.6	4.8	9.3	0.67	0.22	0.10
1977	10.3	12.2	4.8	9.3	0.67	0.22	0.10
1978	11.0	13.3	4.8	9.3	0.68	0.22	0.10
1979	11.3	13.8	4.8	9.3	0.68	0.22	0.10
1980	11.9	14.6	4.8	9.3	0.68	0.22	0.10
1981	12.0	14.8	4.5	9.3	0.68	0.22	0.10
1982	11.8	14.4	4.8	9.3	0.68	0.22	0.10
1983	11.0	13.6	3.3	9.3	0.69	0.21	0.10
1984	11.0	13.5	3.8	9.3	0.69	0.21	0.10
1985	11.8	13.7	6.9	9.3	0.69	0.21	0.10
1986	11.5	13.1	7.5	9.3	0.69	0.21	0.10
1987	10.5	12.6	4.2	9.3	0.69	0.21	0.10
1988	11.7	13.0	8.3	9.3	0.69	0.21	0.10
1989	12.7	13.8	10.6	9.3	0.70	0.21	0.10
1990	11.7	13.9	5.5	9.3	0.70	0.20	0.09
1991	11.7	14.5	3.2	9.3	0.70	0.20	0.09
1992	11.8	14.3	4.2	9.3	0.70	0.21	0.10
1993	11.8	13.8	5.9	9.3	0.70	0.21	0.10
1994	11.8	13.9	5.6	9.3	0.70	0.21	0.10
1995	11.0	13.3	4.0	9.3	0.70	0.20	0.09
1996	12.2	14.1	6.8	9.3	0.71	0.20	0.09
1997	12.7	14.4	5.8	14.3	0.70	0.20	0.09
1998	13.5	14.5	7.7	17.8	0.70	0.20	0.09
1999	13.8	14.4	10.0	17.9	0.70	0.20	0.09
2000	13.2	14.9	7.5	13.0	0.70	0.20	0.09
2001	12.6	14.2	8.0	11.1	0.70	0.21	0.09
2002	11.1	13.6	2.7	11.0	0.70	0.20	0.09
2003	10.9	13.6	3.1	7.9	0.70	0.20	0.09
2004	10.8	13.9	2.6	6.1	0.70	0.20	0.09
2005	11.4	13.9	5.9	4.8	0.70	0.20	0.09
2006	11.4	14.4	3.8	5.5	0.70	0.20	0.09
2007	11.4	14.5	3.7	5.7	0.70	0.20	0.09
2008	11.7	14.7	2.7	7.7	0.70	0.20	0.09
2009	10.6	12.9	2.8	9.9	0.70	0.20	0.09
2010	10.7	13.8	1.4	7.1	0.71	0.20	0.09
2011	10.9	14.3	1.6	5.1	0.71	0.20	0.09
Average							
1970 - 2011	11.5	13.8	5.0	9.4	0.69	0.21	0.10
1970 - 1979	10.9	13.1	4.8	9.3	0.68	0.22	0.10
1980 - 1989	11.6	13.7	5.9	9.3	0.69	0.21	0.10
1990 - 1999	12.2	14.1	5.9	11.5	0.70	0.20	0.09
2000 - 2011	11.4	14.1	3.8	7.9	0.70	0.20	0.09
2007 - 2011	11.1	14.0	2.4	7.1	0.70	0.20	0.09

Table 9.3 Economic Opportunity Cost of Capital (EOCK), annual percent
60 percent of Net Operational Surplus (NOS) as income from labor
Elasticity of domestic savings, 0.3; elasticity of foreign savings, 1

Year	EOCK	Return on Investment	Return on Savings	Cost of Foreign Borrowing	Weight on Return on Investment	Weight on Return on Savings	Weight on Cost of Foreign Borrowing
1970	9.8	11.5	4.8	9.3	0.67	0.22	0.10
1971	9.7	11.5	4.8	9.3	0.67	0.22	0.10
1972	10.0	11.8	4.8	9.3	0.67	0.22	0.10
1973	10.4	12.4	4.8	9.3	0.67	0.22	0.10
1974	10.1	12.0	4.8	9.3	0.67	0.23	0.10
1975	9.8	11.6	4.8	9.3	0.67	0.23	0.11
1976	9.5	11.2	4.8	9.3	0.66	0.23	0.11
1977	9.3	10.9	4.8	9.3	0.66	0.23	0.11
1978	10.0	11.8	4.8	9.3	0.67	0.23	0.11
1979	10.2	12.3	4.8	9.3	0.67	0.23	0.11
1980	10.7	13.0	4.8	9.3	0.67	0.23	0.10
1981	10.8	13.2	4.5	9.3	0.67	0.23	0.11
1982	10.7	12.9	4.8	9.3	0.67	0.23	0.10
1983	9.9	12.1	3.3	9.3	0.68	0.22	0.10
1984	9.9	12.0	3.8	9.3	0.68	0.22	0.10
1985	10.7	12.1	6.9	9.3	0.68	0.22	0.10
1986	10.5	11.6	7.5	9.3	0.68	0.22	0.10
1987	9.4	11.1	4.2	9.3	0.67	0.22	0.10
1988	10.6	11.5	8.3	9.3	0.68	0.22	0.10
1989	11.7	12.4	10.6	9.3	0.68	0.22	0.10
1990	10.7	12.5	5.5	9.3	0.69	0.21	0.10
1991	10.5	13.0	3.2	9.3	0.69	0.21	0.10
1992	10.7	12.9	4.2	9.3	0.69	0.21	0.10
1993	10.7	12.5	5.9	9.3	0.69	0.22	0.10
1994	10.8	12.6	5.6	9.3	0.69	0.22	0.10
1995	10.1	12.0	4.0	9.3	0.69	0.21	0.10
1996	11.1	12.7	6.8	9.3	0.69	0.21	0.10
1997	11.6	13.0	5.8	14.3	0.69	0.21	0.10
1998	12.4	13.1	7.7	17.8	0.69	0.21	0.10
1999	12.8	13.0	10.0	17.9	0.69	0.21	0.10
2000	12.1	13.4	7.5	13.0	0.69	0.21	0.10
2001	11.6	12.8	8.0	11.1	0.69	0.21	0.10
2002	10.1	12.2	2.7	11.0	0.69	0.21	0.10
2003	9.9	12.3	3.1	7.9	0.69	0.21	0.10
2004	9.8	12.5	2.6	6.1	0.69	0.21	0.10
2005	10.4	12.5	5.9	4.8	0.69	0.21	0.10
2006	10.3	13.0	3.8	5.5	0.69	0.21	0.10
2007	10.3	13.0	3.7	5.7	0.69	0.21	0.10
2008	10.5	13.3	2.7	7.7	0.69	0.21	0.10
2009	9.6	11.6	2.8	9.9	0.69	0.21	0.10
2010	9.6	12.4	1.4	7.1	0.69	0.21	0.10
2011	9.7	12.8	1.6	5.1	0.69	0.21	0.10
Average							
1970 - 2011	10.4	12.3	5.0	9.4	0.68	0.22	0.10
1970 - 1979	9.9	11.7	4.8	9.3	0.67	0.23	0.10
1980 - 1989	10.5	12.2	5.9	9.3	0.67	0.22	0.10
1990 - 1999	11.1	12.7	5.9	11.5	0.69	0.21	0.10
2000 - 2011	10.3	12.6	3.8	7.9	0.69	0.21	0.10
2007 - 2011	9.9	12.6	2.4	7.1	0.69	0.21	0.10

Table 10.1 Economic Opportunity Cost of Capital (EOCK), annual percent
50 percent of Net Operational Surplus (NOS) as income from labor
Elasticity of domestic savings, 0.3; elasticity of foreign savings, 2

Year	EOCK	Return on Investment	Return on Savings	Cost of Foreign Borrowing	Weight on Return on Investment	Weight on Return on Savings	Weight on Cost of Foreign Borrowing
1970	11.1	14.2	4.8	7.0	0.63	0.19	0.18
1971	11.1	14.1	4.8	7.0	0.64	0.19	0.18
1972	11.3	14.5	4.8	7.0	0.63	0.19	0.18
1973	11.8	15.3	4.8	7.0	0.63	0.19	0.18
1974	11.6	15.0	4.8	7.0	0.63	0.19	0.18
1975	11.3	14.5	4.8	7.0	0.63	0.19	0.18
1976	10.9	14.0	4.8	7.0	0.62	0.20	0.18
1977	10.7	13.6	4.8	7.0	0.62	0.20	0.18
1978	11.4	14.8	4.8	7.0	0.63	0.19	0.18
1979	11.8	15.3	4.8	7.0	0.63	0.19	0.18
1980	12.3	16.1	4.8	7.0	0.63	0.19	0.18
1981	12.4	16.4	4.5	7.0	0.63	0.19	0.18
1982	12.2	15.9	4.8	7.0	0.63	0.19	0.18
1983	11.5	15.1	3.3	7.0	0.64	0.19	0.17
1984	11.6	15.1	3.8	7.0	0.64	0.19	0.17
1985	12.3	15.2	6.9	7.0	0.64	0.19	0.17
1986	12.0	14.6	7.5	7.0	0.64	0.19	0.17
1987	11.1	14.2	4.2	7.0	0.64	0.19	0.17
1988	12.1	14.5	8.3	7.0	0.65	0.18	0.17
1989	13.1	15.3	10.6	7.0	0.65	0.18	0.17
1990	12.2	15.3	5.5	7.0	0.66	0.18	0.17
1991	12.2	15.9	3.2	7.0	0.66	0.18	0.17
1992	12.2	15.8	4.2	7.0	0.65	0.18	0.17
1993	12.1	15.2	5.9	7.0	0.65	0.18	0.17
1994	12.1	15.2	5.6	7.0	0.65	0.18	0.17
1995	11.4	14.6	4.0	7.0	0.66	0.18	0.16
1996	12.6	15.5	6.8	7.0	0.66	0.18	0.16
1997	13.2	15.9	5.8	10.7	0.66	0.18	0.16
1998	14.1	16.0	7.7	13.4	0.66	0.18	0.16
1999	14.4	15.8	10.0	13.4	0.66	0.18	0.16
2000	13.7	16.4	7.5	9.7	0.66	0.18	0.17
2001	13.0	15.6	8.0	8.3	0.65	0.18	0.17
2002	11.6	14.9	2.7	8.2	0.65	0.18	0.17
2003	11.4	15.0	3.1	5.9	0.66	0.18	0.17
2004	11.2	15.3	2.6	4.6	0.66	0.18	0.16
2005	11.7	15.3	5.9	3.6	0.66	0.18	0.16
2006	11.8	15.9	3.8	4.1	0.66	0.18	0.16
2007	11.8	15.9	3.7	4.3	0.66	0.18	0.16
2008	12.1	16.2	2.7	5.8	0.66	0.18	0.16
2009	11.1	14.2	2.8	7.4	0.66	0.18	0.16
2010	11.2	15.2	1.4	5.3	0.66	0.18	0.16
2011	11.3	15.7	1.6	3.8	0.66	0.18	0.16
Average							
1970 - 2011	11.9	15.2	5.0	7.1	0.65	0.18	0.17
1970 - 1979	11.3	14.5	4.8	7.0	0.63	0.19	0.18
1980 - 1989	12.0	15.2	5.9	7.0	0.64	0.19	0.17
1990 - 1999	12.7	15.5	5.9	8.6	0.66	0.18	0.17
2000 - 2011	11.8	15.5	3.8	5.9	0.66	0.18	0.16
2007 - 2011	11.5	15.5	2.4	5.3	0.66	0.18	0.16

Table 10.2 Economic Opportunity Cost of Capital (EOCK), annual percent
55 percent of Net Operational Surplus (NOS) as income from labor
Elasticity of domestic savings, 0.3; elasticity of foreign savings, 2

Year	EOCK	Return on Investment	Return on Savings	Cost of Foreign Borrowing	Weight on Return on Investment	Weight on Return on Savings	Weight on Cost of Foreign Borrowing
1970	10.2	12.8	4.8	7.0	0.62	0.20	0.18
1971	10.2	12.8	4.8	7.0	0.62	0.20	0.18
1972	10.4	13.2	4.8	7.0	0.62	0.20	0.18
1973	10.8	13.8	4.8	7.0	0.62	0.20	0.18
1974	10.6	13.5	4.8	7.0	0.62	0.20	0.18
1975	10.3	13.1	4.8	7.0	0.61	0.20	0.19
1976	10.0	12.6	4.8	7.0	0.61	0.20	0.19
1977	9.7	12.2	4.8	7.0	0.61	0.20	0.19
1978	10.4	13.3	4.8	7.0	0.62	0.20	0.18
1979	10.7	13.8	4.8	7.0	0.61	0.20	0.19
1980	11.2	14.6	4.8	7.0	0.62	0.20	0.18
1981	11.3	14.8	4.5	7.0	0.61	0.20	0.19
1982	11.1	14.4	4.8	7.0	0.62	0.20	0.18
1983	10.4	13.6	3.3	7.0	0.63	0.19	0.18
1984	10.5	13.5	3.8	7.0	0.63	0.19	0.18
1985	11.2	13.7	6.9	7.0	0.63	0.19	0.18
1986	10.9	13.1	7.5	7.0	0.63	0.19	0.18
1987	10.0	12.6	4.2	7.0	0.63	0.19	0.18
1988	11.0	13.0	8.3	7.0	0.63	0.19	0.18
1989	12.0	13.8	10.6	7.0	0.64	0.19	0.17
1990	11.1	13.9	5.5	7.0	0.64	0.19	0.17
1991	11.1	14.5	3.2	7.0	0.64	0.19	0.17
1992	11.2	14.3	4.2	7.0	0.64	0.19	0.17
1993	11.1	13.8	5.9	7.0	0.64	0.19	0.17
1994	11.1	13.9	5.6	7.0	0.64	0.19	0.17
1995	10.5	13.3	4.0	7.0	0.64	0.19	0.17
1996	11.5	14.1	6.8	7.0	0.65	0.18	0.17
1997	12.2	14.4	5.8	10.7	0.64	0.19	0.17
1998	13.1	14.5	7.7	13.4	0.64	0.19	0.17
1999	13.4	14.4	10.0	13.4	0.64	0.19	0.17
2000	12.6	14.9	7.5	9.7	0.64	0.19	0.17
2001	12.0	14.2	8.0	8.3	0.64	0.19	0.17
2002	10.6	13.6	2.7	8.2	0.64	0.19	0.17
2003	10.3	13.6	3.1	5.9	0.64	0.19	0.17
2004	10.2	13.9	2.6	4.6	0.64	0.19	0.17
2005	10.7	13.9	5.9	3.6	0.64	0.19	0.17
2006	10.7	14.4	3.8	4.1	0.64	0.19	0.17
2007	10.7	14.5	3.7	4.3	0.64	0.19	0.17
2008	11.0	14.7	2.7	5.8	0.64	0.19	0.17
2009	10.1	12.9	2.8	7.4	0.64	0.19	0.17
2010	10.1	13.8	1.4	5.3	0.65	0.18	0.17
2011	10.2	14.3	1.6	3.8	0.65	0.18	0.17
Average							
1970 - 2011	10.9	13.8	5.0	7.1	0.63	0.19	0.18
1970 - 1979	10.3	13.1	4.8	7.0	0.62	0.20	0.18
1980 - 1989	11.0	13.7	5.9	7.0	0.62	0.20	0.18
1990 - 1999	11.6	14.1	5.9	8.6	0.64	0.19	0.17
2000 - 2011	10.8	14.1	3.8	5.9	0.64	0.19	0.17
2007 - 2011	10.4	14.0	2.4	5.3	0.64	0.18	0.17

**Table 10.3 Economic Opportunity Cost of Capital (EOCK), annual percent
60 percent of Net Operational Surplus (NOS) as income from labor
Elasticity of domestic savings, 0.3; elasticity of foreign savings, 2**

Year	EOCK	Return on Investment	Return on Savings	Cost of Foreign Borrowing	Weight on Return on Investment	Weight on Return on Savings	Weight on Cost of Foreign Borrowing
1970	9.3	11.5	4.8	7.0	0.61	0.20	0.19
1971	9.3	11.5	4.8	7.0	0.61	0.20	0.19
1972	9.5	11.8	4.8	7.0	0.61	0.20	0.19
1973	9.8	12.4	4.8	7.0	0.61	0.20	0.19
1974	9.6	12.0	4.8	7.0	0.60	0.21	0.19
1975	9.3	11.6	4.8	7.0	0.60	0.21	0.19
1976	9.1	11.2	4.8	7.0	0.60	0.21	0.19
1977	8.9	10.9	4.8	7.0	0.60	0.21	0.19
1978	9.5	11.8	4.8	7.0	0.60	0.21	0.19
1979	9.7	12.3	4.8	7.0	0.60	0.21	0.19
1980	10.2	13.0	4.8	7.0	0.60	0.21	0.19
1981	10.2	13.2	4.5	7.0	0.60	0.21	0.19
1982	10.1	12.9	4.8	7.0	0.61	0.20	0.19
1983	9.4	12.1	3.3	7.0	0.61	0.20	0.19
1984	9.4	12.0	3.8	7.0	0.61	0.20	0.19
1985	10.1	12.1	6.9	7.0	0.61	0.20	0.19
1986	9.9	11.6	7.5	7.0	0.61	0.20	0.19
1987	9.0	11.1	4.2	7.0	0.61	0.20	0.19
1988	10.0	11.5	8.3	7.0	0.62	0.20	0.18
1989	11.0	12.4	10.6	7.0	0.62	0.20	0.18
1990	10.1	12.5	5.5	7.0	0.63	0.19	0.18
1991	10.0	13.0	3.2	7.0	0.63	0.19	0.18
1992	10.2	12.9	4.2	7.0	0.62	0.20	0.18
1993	10.2	12.5	5.9	7.0	0.62	0.20	0.18
1994	10.2	12.6	5.6	7.0	0.62	0.20	0.18
1995	9.6	12.0	4.0	7.0	0.63	0.19	0.18
1996	10.6	12.7	6.8	7.0	0.63	0.19	0.18
1997	11.2	13.0	5.8	10.7	0.63	0.19	0.18
1998	12.1	13.1	7.7	13.4	0.63	0.19	0.18
1999	12.5	13.0	10.0	13.4	0.63	0.19	0.18
2000	11.6	13.4	7.5	9.7	0.63	0.19	0.18
2001	11.0	12.8	8.0	8.3	0.63	0.19	0.18
2002	9.7	12.2	2.7	8.2	0.63	0.19	0.18
2003	9.4	12.3	3.1	5.9	0.63	0.19	0.18
2004	9.2	12.5	2.6	4.6	0.63	0.19	0.18
2005	9.6	12.5	5.9	3.6	0.63	0.19	0.18
2006	9.6	13.0	3.8	4.1	0.63	0.19	0.18
2007	9.6	13.0	3.7	4.3	0.63	0.19	0.18
2008	9.9	13.3	2.7	5.8	0.63	0.19	0.18
2009	9.2	11.6	2.8	7.4	0.63	0.19	0.18
2010	9.0	12.4	1.4	5.3	0.63	0.19	0.18
2011	9.1	12.8	1.6	3.8	0.63	0.19	0.18
Average							
1970 - 2011	9.9	12.3	5.0	7.1	0.62	0.20	0.18
1970 - 1979	9.4	11.7	4.8	7.0	0.61	0.21	0.19
1980 - 1989	9.9	12.2	5.9	7.0	0.61	0.20	0.19
1990 - 1999	10.7	12.7	5.9	8.6	0.63	0.19	0.18
2000 - 2011	9.7	12.6	3.8	5.9	0.63	0.19	0.18
2007 - 2011	9.4	12.6	2.4	5.3	0.63	0.19	0.18

**Table 11.1 Economic Opportunity Cost of Capital (EOCK), annual percent
50 percent of Net Operational Surplus (NOS) as income from labor
Elasticity of domestic savings, 0.3; elasticity of foreign savings, 3**

Year	EOCK	Return on Investment	Return on Savings	Cost of Foreign Borrowing	Weight on Return on Investment	Weight on Return on Savings	Weight on Cost of Foreign Borrowing
1970	10.6	14.2	4.8	6.2	0.58	0.17	0.24
1971	10.6	14.1	4.8	6.2	0.58	0.17	0.24
1972	10.8	14.5	4.8	6.2	0.58	0.18	0.24
1973	11.3	15.3	4.8	6.2	0.58	0.17	0.24
1974	11.0	15.0	4.8	6.2	0.58	0.18	0.25
1975	10.7	14.5	4.8	6.2	0.57	0.18	0.25
1976	10.4	14.0	4.8	6.2	0.57	0.18	0.25
1977	10.2	13.6	4.8	6.2	0.57	0.18	0.25
1978	10.9	14.8	4.8	6.2	0.58	0.18	0.25
1979	11.2	15.3	4.8	6.2	0.57	0.18	0.25
1980	11.7	16.1	4.8	6.2	0.58	0.18	0.25
1981	11.7	16.4	4.5	6.2	0.57	0.18	0.25
1982	11.6	15.9	4.8	6.2	0.58	0.18	0.24
1983	10.9	15.1	3.3	6.2	0.59	0.17	0.24
1984	11.0	15.1	3.8	6.2	0.59	0.17	0.24
1985	11.7	15.2	6.9	6.2	0.59	0.17	0.24
1986	11.4	14.6	7.5	6.2	0.59	0.17	0.24
1987	10.6	14.2	4.2	6.2	0.59	0.17	0.24
1988	11.5	14.5	8.3	6.2	0.59	0.17	0.24
1989	12.4	15.3	10.6	6.2	0.60	0.17	0.23
1990	11.6	15.3	5.5	6.2	0.61	0.17	0.23
1991	11.6	15.9	3.2	6.2	0.61	0.17	0.23
1992	11.6	15.8	4.2	6.2	0.60	0.17	0.23
1993	11.5	15.2	5.9	6.2	0.60	0.17	0.23
1994	11.5	15.2	5.6	6.2	0.60	0.17	0.23
1995	10.9	14.6	4.0	6.2	0.61	0.16	0.23
1996	12.0	15.5	6.8	6.2	0.61	0.16	0.23
1997	12.8	15.9	5.8	9.6	0.61	0.16	0.23
1998	13.7	16.0	7.7	11.9	0.61	0.16	0.23
1999	14.0	15.8	10.0	11.9	0.61	0.16	0.23
2000	13.1	16.4	7.5	8.7	0.61	0.17	0.23
2001	12.4	15.6	8.0	7.4	0.60	0.17	0.23
2002	11.1	14.9	2.7	7.3	0.60	0.17	0.23
2003	10.8	15.0	3.1	5.3	0.61	0.16	0.23
2004	10.6	15.3	2.6	4.1	0.61	0.16	0.23
2005	11.0	15.3	5.9	3.2	0.61	0.16	0.23
2006	11.1	15.9	3.8	3.6	0.61	0.16	0.23
2007	11.2	15.9	3.7	3.8	0.61	0.16	0.23
2008	11.5	16.2	2.7	5.1	0.61	0.16	0.23
2009	10.6	14.2	2.8	6.6	0.61	0.16	0.23
2010	10.6	15.2	1.4	4.7	0.61	0.16	0.23
2011	10.7	15.7	1.6	3.4	0.61	0.16	0.23
Average							
1970 - 2011	11.4	15.2	5.0	6.3	0.60	0.17	0.24
1970 - 1979	10.8	14.5	4.8	6.2	0.58	0.18	0.25
1980 - 1989	11.4	15.2	5.9	6.2	0.59	0.17	0.24
1990 - 1999	12.1	15.5	5.9	7.7	0.61	0.17	0.23
2000 - 2011	11.2	15.5	3.8	5.3	0.61	0.16	0.23
2007 - 2011	10.9	15.5	2.4	4.7	0.61	0.16	0.23

Table 11.2 Economic Opportunity Cost of Capital (EOCK), annual percent
55 percent of Net Operational Surplus (NOS) as income from labor
Elasticity of domestic savings, 0.3; elasticity of foreign savings, 3

Year	EOCK	Return on Investment	Return on Savings	Cost of Foreign Borrowing	Weight on Return on Investment	Weight on Return on Savings	Weight on Cost of Foreign Borrowing
1970	9.7	12.8	4.8	6.2	0.57	0.18	0.25
1971	9.7	12.8	4.8	6.2	0.57	0.18	0.25
1972	9.9	13.2	4.8	6.2	0.57	0.18	0.25
1973	10.3	13.8	4.8	6.2	0.57	0.18	0.25
1974	10.1	13.5	4.8	6.2	0.56	0.18	0.25
1975	9.8	13.1	4.8	6.2	0.56	0.18	0.25
1976	9.5	12.6	4.8	6.2	0.56	0.18	0.26
1977	9.3	12.2	4.8	6.2	0.56	0.18	0.26
1978	9.9	13.3	4.8	6.2	0.56	0.18	0.25
1979	10.2	13.8	4.8	6.2	0.56	0.18	0.25
1980	10.7	14.6	4.8	6.2	0.56	0.18	0.25
1981	10.7	14.8	4.5	6.2	0.56	0.18	0.25
1982	10.6	14.4	4.8	6.2	0.57	0.18	0.25
1983	9.9	13.6	3.3	6.2	0.57	0.18	0.25
1984	10.0	13.5	3.8	6.2	0.58	0.18	0.25
1985	10.6	13.7	6.9	6.2	0.58	0.18	0.25
1986	10.4	13.1	7.5	6.2	0.58	0.18	0.25
1987	9.6	12.6	4.2	6.2	0.57	0.18	0.25
1988	10.5	13.0	8.3	6.2	0.58	0.18	0.24
1989	11.4	13.8	10.6	6.2	0.59	0.17	0.24
1990	10.6	13.9	5.5	6.2	0.59	0.17	0.24
1991	10.6	14.5	3.2	6.2	0.59	0.17	0.24
1992	10.6	14.3	4.2	6.2	0.59	0.17	0.24
1993	10.6	13.8	5.9	6.2	0.59	0.17	0.24
1994	10.6	13.9	5.6	6.2	0.59	0.17	0.24
1995	10.0	13.3	4.0	6.2	0.59	0.17	0.24
1996	11.0	14.1	6.8	6.2	0.59	0.17	0.24
1997	11.8	14.4	5.8	9.6	0.59	0.17	0.24
1998	12.7	14.5	7.7	11.9	0.59	0.17	0.24
1999	13.1	14.4	10.0	11.9	0.59	0.17	0.24
2000	12.1	14.9	7.5	8.7	0.59	0.17	0.24
2001	11.5	14.2	8.0	7.4	0.59	0.17	0.24
2002	10.2	13.6	2.7	7.3	0.59	0.17	0.24
2003	9.8	13.6	3.1	5.3	0.59	0.17	0.24
2004	9.6	13.9	2.6	4.1	0.59	0.17	0.24
2005	10.0	13.9	5.9	3.2	0.59	0.17	0.24
2006	10.1	14.4	3.8	3.6	0.59	0.17	0.24
2007	10.1	14.5	3.7	3.8	0.59	0.17	0.24
2008	10.4	14.7	2.7	5.1	0.59	0.17	0.24
2009	9.7	12.9	2.8	6.6	0.59	0.17	0.24
2010	9.6	13.8	1.4	4.7	0.59	0.17	0.24
2011	9.6	14.3	1.6	3.4	0.59	0.17	0.24
Average							
1970 - 2011	10.4	13.8	5.0	6.3	0.58	0.18	0.24
1970 - 1979	9.8	13.1	4.8	6.2	0.56	0.18	0.25
1980 - 1989	10.4	13.7	5.9	6.2	0.57	0.18	0.25
1990 - 1999	11.2	14.1	5.9	7.7	0.59	0.17	0.24
2000 - 2011	10.2	14.1	3.8	5.3	0.59	0.17	0.24
2007 - 2011	9.9	14.0	2.4	4.7	0.59	0.17	0.24

**Table 11.3 Economic Opportunity Cost of Capital (EOCK), annual percent
60 percent of Net Operational Surplus (NOS) as income from labor
Elasticity of domestic savings, 0.3; elasticity of foreign savings, 3**

Year	EOCK	Return on Investment	Return on Savings	Cost of Foreign Borrowing	Weight on Return on Investment	Weight on Return on Savings	Weight on Cost of Foreign Borrowing
1970	8.9	11.5	4.8	6.2	0.56	0.19	0.26
1971	8.9	11.5	4.8	6.2	0.56	0.19	0.26
1972	9.1	11.8	4.8	6.2	0.56	0.19	0.26
1973	9.4	12.4	4.8	6.2	0.56	0.19	0.26
1974	9.2	12.0	4.8	6.2	0.55	0.19	0.26
1975	8.9	11.6	4.8	6.2	0.55	0.19	0.26
1976	8.7	11.2	4.8	6.2	0.55	0.19	0.26
1977	8.5	10.9	4.8	6.2	0.55	0.19	0.26
1978	9.0	11.8	4.8	6.2	0.55	0.19	0.26
1979	9.3	12.3	4.8	6.2	0.55	0.19	0.26
1980	9.7	13.0	4.8	6.2	0.55	0.19	0.26
1981	9.7	13.2	4.5	6.2	0.55	0.19	0.26
1982	9.6	12.9	4.8	6.2	0.55	0.19	0.26
1983	9.0	12.1	3.3	6.2	0.56	0.18	0.26
1984	9.0	12.0	3.8	6.2	0.56	0.18	0.25
1985	9.6	12.1	6.9	6.2	0.56	0.18	0.26
1986	9.5	11.6	7.5	6.2	0.56	0.18	0.26
1987	8.6	11.1	4.2	6.2	0.56	0.18	0.26
1988	9.6	11.5	8.3	6.2	0.56	0.18	0.25
1989	10.5	12.4	10.6	6.2	0.57	0.18	0.25
1990	9.7	12.5	5.5	6.2	0.57	0.18	0.25
1991	9.6	13.0	3.2	6.2	0.58	0.18	0.25
1992	9.7	12.9	4.2	6.2	0.57	0.18	0.25
1993	9.7	12.5	5.9	6.2	0.57	0.18	0.25
1994	9.7	12.6	5.6	6.2	0.57	0.18	0.25
1995	9.2	12.0	4.0	6.2	0.58	0.18	0.25
1996	10.1	12.7	6.8	6.2	0.58	0.18	0.24
1997	10.9	13.0	5.8	9.6	0.58	0.18	0.25
1998	11.9	13.1	7.7	11.9	0.58	0.18	0.25
1999	12.2	13.0	10.0	11.9	0.58	0.18	0.25
2000	11.2	13.4	7.5	8.7	0.58	0.18	0.25
2001	10.6	12.8	8.0	7.4	0.57	0.18	0.25
2002	9.3	12.2	2.7	7.3	0.57	0.18	0.25
2003	8.9	12.3	3.1	5.3	0.58	0.18	0.25
2004	8.7	12.5	2.6	4.1	0.58	0.18	0.25
2005	9.1	12.5	5.9	3.2	0.58	0.18	0.25
2006	9.1	13.0	3.8	3.6	0.58	0.18	0.25
2007	9.1	13.0	3.7	3.8	0.58	0.18	0.25
2008	9.4	13.3	2.7	5.1	0.58	0.18	0.25
2009	8.8	11.6	2.8	6.6	0.58	0.18	0.25
2010	8.6	12.4	1.4	4.7	0.58	0.18	0.24
2011	8.5	12.8	1.6	3.4	0.58	0.18	0.24
Average							
1970 - 2011	9.5	12.3	5.0	6.3	0.57	0.18	0.25
1970 - 1979	9.0	11.7	4.8	6.2	0.55	0.19	0.26
1980 - 1989	9.5	12.2	5.9	6.2	0.56	0.18	0.26
1990 - 1999	10.3	12.7	5.9	7.7	0.58	0.18	0.25
2000 - 2011	9.3	12.6	3.8	5.3	0.58	0.18	0.25
2007 - 2011	8.9	12.6	2.4	4.7	0.58	0.18	0.25