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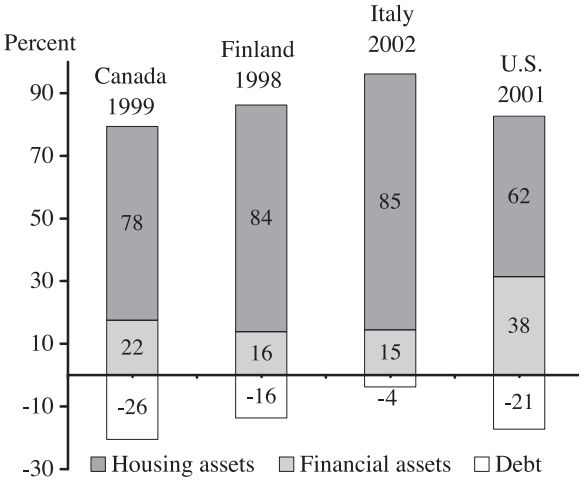
Disentangling the Wealth Effect: Some International Evidence

Over the past several years, movements in asset prices have substantially raised household wealth. For the U.S. and many other industrialized countries, the most recent boost has come more from the appreciation of house prices than financial assets. In the U.S. housing wealth has moved back above financial wealth in terms of the share of assets. In a number of other industrialized countries, including three examined in this *Economic Letter*, housing wealth makes up an even larger share of individuals' portfolios than is the case for the U.S. (see Figure 1).

Figure 1
Household portfolio composition
(% share of total assets)



Source: Sierminska et al. 2006.
Note: Asset shares are computed as ratios of samples.

Movements in housing value and other asset prices can have implications for economic outlook for a number of reasons. One is the so-called wealth effect channel—the extent to which consumer spending responds to changes in wealth (asset values). With the recent cooling in the U.S. single family housing sector and potential "correction" in other countries, analysis of the possible wealth effects from housing have moved front and center.

In this *Economic Letter*, we report on research that takes advantage of newly available international data and examines in some detail the wealth effect in three countries, Canada, Finland, and Italy (Sierminska and Takhtamanova 2007). First, we investigate whether consumption responds differently to changes in housing and financial wealth. Second, we investigate whether there are differences in consumption responses to changes in wealth across different age groups.

Theoretical considerations

The life cycle theory of consumption, which underpins most efforts to model wealth effects, argues that consumers try to smooth consumption over their life span. For example, because incomes are expected to rise at least over a typical person's initial working years, consumers are likely to borrow against their future earnings when they are young, build wealth (save) and pay their debts during middle age, and run down their wealth in retirement. In this framework, a typical consumer will spread out the benefit or deficit from an unexpected gain or loss in wealth by boosting or cutting current spending by a fraction of the value of the change in wealth and maintain that new level of spending over time.

Not all wealth is the same, however, and researchers have argued that it makes sense to distinguish between financial asset wealth and housing wealth, because the characteristics of each may have different effects on people's propensity to consume. Economic theory suggests that the consumption response to a positive asset shock is larger if the asset is more liquid (easier to buy and sell). The response is also larger if households think the asset value is easier to measure, if they perceive the asset to be more appropriate for financing current consumption, and if they view the shock to be more permanent.

Given these characteristics, it is not obvious whether to expect a larger wealth effect out of changes to housing or financial wealth. For example, traditionally, financial assets have been viewed as more liquid (though financial innovations have made it easier for homeowners in many countries to extract equity from their houses), more trackable (because they are more homogeneous and traded more frequently than houses), and more appropriate to use for current consumption. On the other hand, shocks to housing wealth might be viewed as more permanent (Pichette and Tremblay 2003). Finally, the relative effect of the two types of wealth may depend on how broadly they are distributed across the country.

Furthermore, as already mentioned, the life cycle theory predicts that the marginal propensity to consume out of wealth increases with the consumer's age. This insight is especially important given that the share of

older households is rising in many countries, including the U.S., because it implies that wealth shocks would be expected to cause a larger aggregate consumption response.

Financial and housing wealth effects

Previous studies attempting to assess wealth effects have relied on either aggregated data or data on individual households. In recent studies using time series data aggregated at the national or regional level for the U.S. and Canada, the estimated wealth effect out of housing wealth has been found to exceed that of financial asset wealth consistently (Davis and Palumbo 2001, Carroll 2004, Pichette and Tremblay 2003). The macroeconomic evidence on the relative sizes of financial and housing wealth effects in other OECD countries is mixed (Carroll 2004). A concern with the evidence from studies using aggregated data is that estimates of the wealth effects may reflect spurious relationships; that is, wealth fluctuations can be affected by many factors that also affect fluctuations in expenditures (such as overall macroeconomic prospects).

An alternative approach is to use survey data on individual households (micro data), as household wealth may be less influenced by macroeconomic circumstances. However, existing estimates of the wealth effect for different countries are obtained using different methods and, for the most part, the data are not comparable. We use data available through the Luxembourg Wealth Study (LWS), a project under development within the larger Luxembourg Income Study (LIS), which makes cross-country analysis with more comparable data possible (see http://www.lisproject.org/lws.htm). Based on the availability of expenditure data, our analysis focuses on a sample of homeowners in three countries, Canada (1999), Finland (1998), and Italy (2002).

In our framework, at any given period, the amount a consumer spends depends on his or her expected remaining life span (age), expected future labor income stream (permanent income), net financial asset holdings and net housing holdings (wealth), and rate of time preference. Our measure of consumption is total expenditures, created by summing the available expenditure components in the surveys (See the Appendix in Sierminska and Takhtamanova 2007). Finland and Italy have an extensive list of expenditure components. Canada includes housing, transportation, and child care. Our measure of wealth focuses on consumers' financial and housing wealth. Our measure of financial assets includes deposit accounts, stocks, bonds, and mutual funds. Nonfinancial assets include consumers' principal residence and investment real estate. Housing wealth refers to nonfinancial assets net of home-secured debt. We also account for a variety of demographic variables, such as education, the gender of the head of household, marital status, and the number of children.

As a first pass, we allow age and the other demographic and socioeconomic variables to affect only the average level of consumption. Our estimates show that, for all three countries, the housing wealth effect is substantially larger than the financial wealth effect. The estimated effects are the percent change in consumption caused by a 1% change in wealth. As shown in Figure 2, our estimate with respect to financial wealth is negligible in Canada, about 2% in Finland, and 4% in Italy. The housing wealth effect is much stronger. A 1% increase in households' housing wealth raises households' expenditure by about 12% in Canada, 10% in Finland, and 13% in Italy.

Although our results are significant, it is possible that the reason housing wealth has such a large effect is that it serves as a proxy for permanent income, which is an important determinant of household consumption. Nonetheless, our estimates are broadly consistent with some other studies using micro data (Bostic et al. 2006 for the U.S. and Guiso et al. 2005 for Italy). Moreover, we make an extensive effort to control for permanent income by including a variety of sociodemographic characteristics of the households.

Wealth effects across age groups

Recent studies that address differences in wealth effects across ages tend to focus only on housing wealth (see, for instance, Lehnert 2004 for the U.S.; Grant and Peltonen 2005 for Italy) and find stronger wealth effects for older households.

We divide our sample into several age groups and find no clear pattern in the financial wealth effects among them. However, a clear pattern emerges for the *housing* wealth effect, as Figure 3 shows. In all three countries, the housing wealth effect is significantly lower for younger households and is strongest for those aged 55–64 in Finland and Italy and those aged 75 and over in Canada. In Canada the effect consistently increases from age 55 onwards, and in Finland and Italy the effect increases up to the group aged 55–64 and then is lower in the two oldest age groups.

Conclusion

In our study we consistently find that the housing wealth effect is greater than the financial wealth effect for homeowners in three industrialized countries—Canada, Finland, and Italy. We caution, however, that our estimates must be considered tentative as the analysis is based on the beta version of a developing data source and as the existing econometric evidence does not completely agree on this subject. Our finding that the housing wealth effect is consistently stronger for older households in the three countries we examine also lends some support to the life cycle theory and bolsters the results of other studies.

These results suggest that it is important for policymakers to keep an eye on housing market developments separately from financial markets. If it is true that the housing wealth effect dominates the financial wealth effect, at least in some countries, then the effects of a

Figure 2
Estimated wealth effects
(% change in consumption for 1% change in wealth)

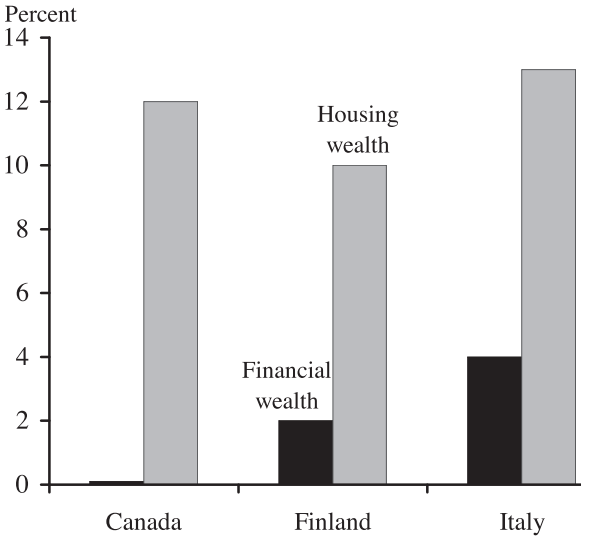
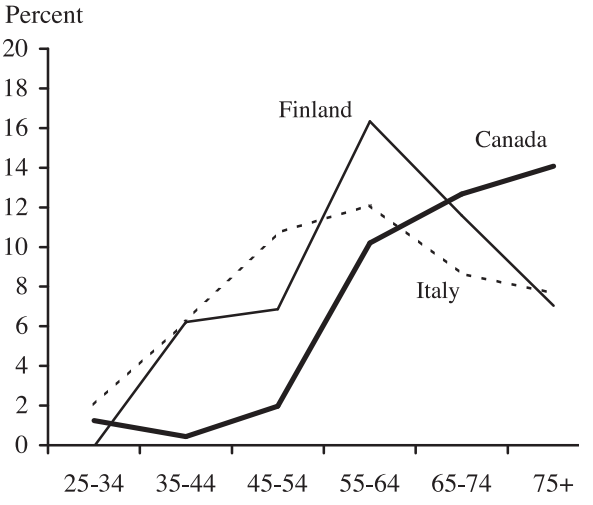


Figure 3
Estimated housing wealth effect by age
(% change in consumption for 1% change in housing wealth)



softening in the housing market in a number of industrialized countries could have a more dramatic impact than the historically large stock market declines that began in 2000. Additionally, if the wealth effect is stronger for older households, the demographic changes around the world could make housing wealth effects even more important in the future.

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