

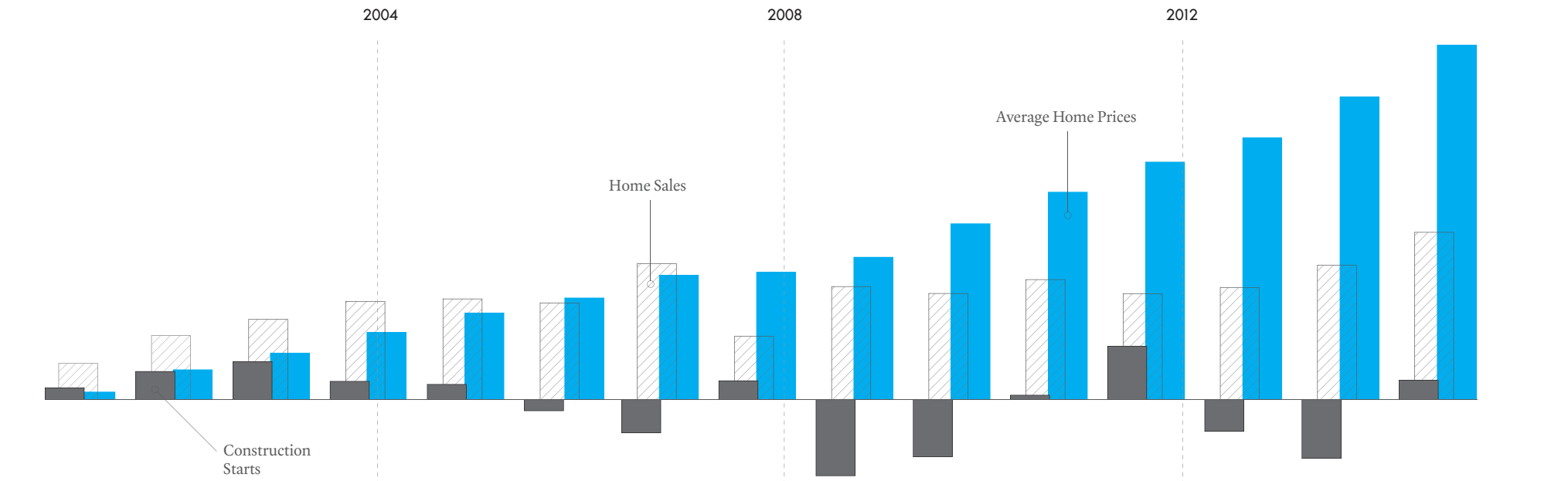
TORONTO HOUSING MARKET, IN CONTEXT

For years, the general consensus among Canadians has been that there is a real estate bubble growing within major metropolitan areas. Toronto continues to witness annual home price increases of 20%+. However, for every bearish indicator there is a bullish one. Supply has not met demand; housing

construction starts remain steady despite excessive demand (and related price increases). Mortgage default rates hover around 0.3%. To put that number in context: during the 2008 U.S. recession default rates on all mortgage loans surpassed 5%. On the other hand, points of concern include the growth in the

shadow lending system in Canada. Mortgage Backed Securities are becoming more prevalent as a result. As well, debt levels have become worrisome: Canadian household debt to income levels exceed 165%, with two thirds of Canadian debt comprised of mortgages.

DEMAND VS SUPPLY: CONSTRUCTION STARTS COMPARED WITH HOME PRICE GROWTH IN TORONTO, *Indexed to the year 2000*



AVERAGE HOME PRICE, TORONTO 2016

\$729,922

Strong demand vs. constrained supply will prolong double digit growth rates: prices are expected to increase to \$825,000 by the end of 2017.

NO. OF HOME SALES, 2016

113,113

Home sales are expected to decrease slightly in 2017, with a point forecast of 110,000.

HOME PRICES RELATIVE TO INCOME

16x

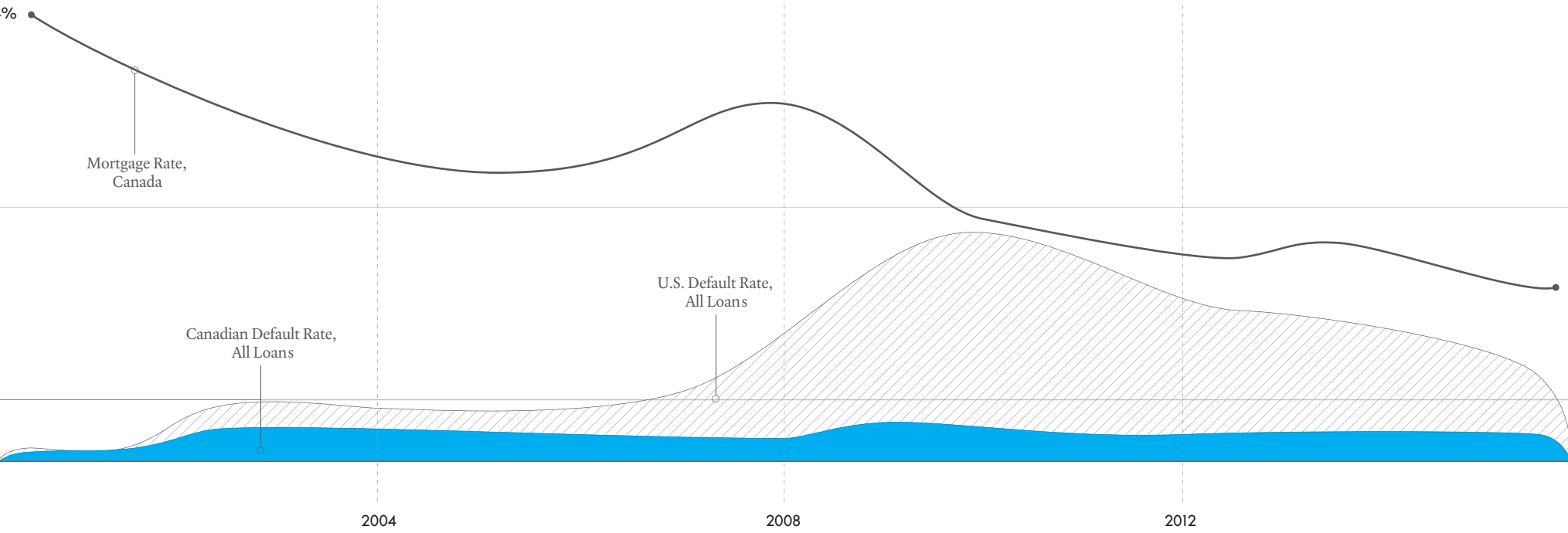
Average home selling prices as a multiple of annual household income, Canada-wide.

HOUSEHOLD DEBT RELATIVE TO INCOME

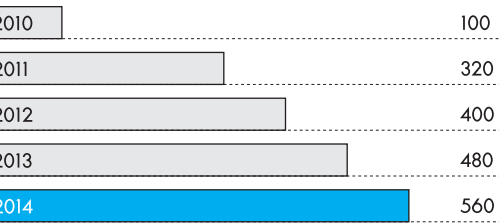
1.65x

Percentage of household debt to disposable income, Canada-wide.

CANADIAN MORTGAGE DELINQUENCY RATES VERSUS U.S RATES OVER THE SAME PERIOD, *Measured by mortgages with payments 90+ days in arrears*



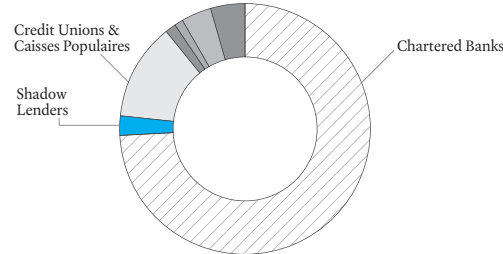
GROWTH OF SHADOW LENDING, *Canada, indexed to 2010*



5x

Non-depository Credit Intermediaries, or “Shadow Lenders” differ from traditional banks in that a bank would manage the credit process from start to end. Shadow lenders divide the process into steps and outsource each step to a different entity.

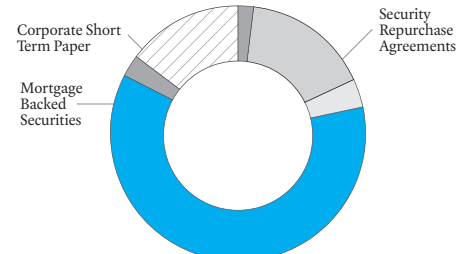
RESIDENTIAL MORTGAGES OUTSTANDING, *by funder*



3.8%

The growth in mortgages originated by shadow lenders is relatively minor when viewed as a percentage of total mortgages outstanding. To put this number in context, mortgages originated by shadow lenders in the U.S. during the financial crisis surpassed 30% of all total mortgages outstanding.

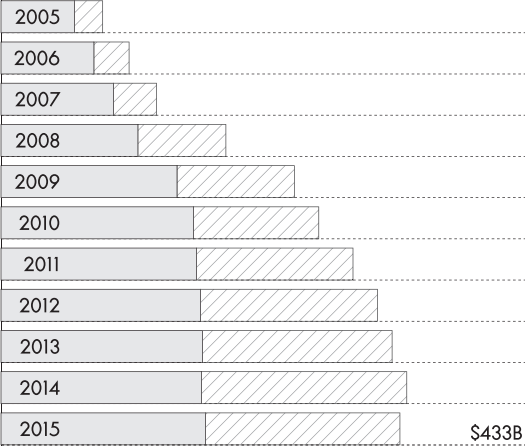
SHADOW LENDING SYSTEM BY COMPONENT, *Canada*



60%

The constituent parts of the Canadian shadow lending system have evolved over time, with Mortgage Backed Securities (MBS) now comprising over 60% of the total. The Canadian MBS market grew considerably after 2008 as a result of a government program encouraging mortgage lenders to pool insured mortgages into MBS securities. The lenders then sold the MBS securities to the Canadian Mortgage Housing Corporation (CMHC), increasing liquidity and enabling mortgages to continue to be loaned without major disruption.

MORTGAGE BACKED SECURITIES, *Total (\$CAD)*



\$433B

The total value of Mortgage Backed Securities outstanding in Canada as of 2015. This figure is one of the reasons for the substantial growth in Canadian household debt, which is now sitting at record levels.