

Tbilisi 2022 Abstract Submission

Title

Top incomes : Evidence from Bordeaux Fine Wine Prices

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Conference Presentation

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Keywords

Bordeaux fine wines, top incomes, inequalities

Research Question

Can historical wine prices reflect changing inequalities?

Methods

Statistical analysis of long series of wine prices (1818-2010)

Results

Our measure provides an interesting proxy for global top incomes in the absence of a comprehensive coverage of the super-rich in the recent years

Abstract

With relatively fixed supply, the evolution of prices of fine wine from Bordeaux must reflect the evolution of relative incomes, i.e. of top incomes who can afford these wines relative to the rest of the income distribution. We use historical data on Grands Crus prices to establish this measure as a novel proxy of world inequality (top income shares). It matches relatively well the historical series from the World Inequality Database and provides new

evidence for the 19th century, a period that is rarely covered in a comprehensive way by traditional data. Results point to a slow rise of inequality in the 19th century (consistent with Chancel and Piketty, 2021) and a sharp rise over the past three decades (well documented in the top-income literature). Our approach also allows us to nowcast the evolution of world top incomes in the absence of reliable data for the top incomes in Russia and China. The paper is positioned in the literature on historical trends in top incomes – but also relates to some studies on wine consumption and wine price setting over the long-period, and about price variation in general. None of these literatures addresses the measure of income inequality as inferred from top wine prices. Using historical price records for Bordeaux Premiers Crus, Dimson et al. (2005) examine the impact of aging on wine prices and the long-term investment performance of fine wine. Chevet et al. (2011) study the impact of weather conditions on historical price data, using archive data from one of the Pauillac first growths. For the more recent period, Candau et al. (2017) focus on the demand-side determinants of wine prices, particularly on the effect of importers' GDP per capita. Demand (trade shares) are particularly sensitive to top income shares for countries like China where consumption and investment in wine are concentrated at the top of the distribution. The rapid increase in French fine wine prices between 2001 and 2011 cannot be explained by a decline trade cost or an increase in quality, rather by the sharp increase in the demand from emerging markets, as confirmed by Cevik and Sedik (2011) and Chevet et al. (2011).

Regarding inequality and the relative income share of top incomes, a huge research has been provided in the past two decades. Pioneering work by Kuznets or Lindert (see Kuznets, 1953, Lindert, 1986, 2000) has been completed by an enormous amount of historical data from various administrative sources collected by Atkinson, Piketty and coauthors. These databases are today gathered in the World Inequality Database (WID), which offers a global historical coverage of income and wealth distributions. Yet, historical data usually covers the 20th century only because one of the main sources, administrative income tax data, does not usually start before the early 20th century or the late 19th century. Wealth and inheritance records are also mobilized and allow much longer series when focusing on specific world regions (Alfani, 2015, 2017). Recently, Chancel and Piketty (2021) gather this type of data at a broader scale to offer a long-term measure of global inequality, with estimates ranging from 1820 to 2020. Two other works were also attempting to construct world income distribution estimates going back to 1820: Bourguignon and Morrisson (2002) and van Zanden et al. (2013). These three studies rely heavily on the aggregate population and income series by country and region put together by Maddison (2001), and find a similar pattern for global inequality trends in the long-run (namely, rising inequality during the 19th century, and a mixture of stabilization and contradictory movements in the 20th century). Chancel and Piketty avail of more information regarding within-country inequality. Regarding the long period, they avail of early tax data for some countries (series begin as early as 1870–1880 for Germany, Denmark and Sweden thanks to the early introduction of a modern income tax system) and of historical inheritance records that provide wealth distribution series – from which they infer income distribution estimates – starting around 1750–1800 for a number of European countries (in particular France, Sweden, and Britain, cf. Piketty, Postel-Vinay, and Rosenthal, 2006, Bengtsson et al., 2017, Roine and Waldenstrom, 2015), from which they infer. In any case, global estimates imply extrapolation over time and across countries (simple assumptions are made for missing years or regions/countries) or data sources (from wealth to income), but results are robust to extensive sensitivity checks.

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Top incomes : Evidence from Bordeaux Fine Wine Prices

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and Jean-Marie Cardebat (Bordeaux University & INSEEC)

Keywords: Bordeaux fine wines, top incomes, inequalities

Abstract

With relatively fixed supply, the evolution of prices of fine wine from Bordeaux must reflect the evolution of relative incomes, i.e. of top incomes who can afford these wines relative to the rest of the income distribution. We use historical data on *Grands Crus* prices to establish this measure as a novel proxy of world inequality (top income shares). It matches relatively well the historical series from the World Inequality Database and provides new evidence for the 19th century, a period that is rarely covered in a comprehensive way by traditional data. Results point to a slow rise of inequality in the 19th century (consistent with Chancel and Piketty, 2021) and a sharp rise over the past three decades (well documented in the top-income literature). Our approach also allows us to nowcast the evolution of world top incomes in the absence of reliable data for the top incomes in Russia and China.

Literature

The paper is positioned in the literature on historical trends in top incomes – but also relates to some studies on wine consumption and wine price setting over the long-period, and about price variation in general. None of these literatures addresses the measure of income inequality as inferred from top wine prices. Using historical price records for Bordeaux Premiers Crus, Dimson et al. (2005) examine the impact of aging on wine prices and the long-term investment performance of fine wine. Chevet et al. (2011) study the impact of weather conditions on historical price data, using archive data from one of the Pauillac first growths. For the more recent period, Candau et al. (2017) focus on the demand-side determinants of wine prices, particularly on the effect of importers' GDP per capita. Demand (trade shares) are particularly sensitive to top income shares for countries like China where consumption and investment in wine are concentrated at the top of the distribution. The rapid increase in French fine wine prices between 2001 and 2011 cannot be explained by a decline trade cost or an increase in quality, rather by the sharp increase in the demand from emerging markets, as confirmed by Cevik and Sedik (2011) and Chevet et al. (2011).

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records are also mobilized and allow much longer series when focusing on specific world regions (Alfani, 2015, 2017). Recently, Chancel and Piketty (2021) gather this type of data at a broader scale to offer a long-term measure of global inequality, with estimates ranging from 1820 to 2020. Two other works were also attempting to construct world income distribution estimates going back to 1820: Bourguignon and Morrisson (2002) and van Zanden et al. (2013). These three studies rely heavily on the aggregate population and income series by country and region put together by Maddison (2001), and find a similar pattern for global inequality trends in the long-run (namely, rising inequality during the 19th century, and a mixture of stabilization and contradictory movements in the 20th century). Chancel and Piketty avail of more information regarding within-country inequality. Regarding the long period, they avail of early tax data for some countries (series begin as early as 1870–1880 for Germany, Denmark and Sweden thanks to the early introduction of a modern income tax system) and of historical inheritance records that provide wealth distribution series – from which they infer income distribution estimates – starting around 1750–1800 for a number of European countries (in particular France, Sweden, and Britain, cf. Piketty, Postel-Vinay, and Rosenthal, 2006, Bengtsson et al., 2017, Roine and Waldenstrom, 2015), from which they infer. In any case, global estimates imply extrapolation over time and across countries (simple assumptions are made for missing years or regions/countries) or data sources (from wealth to income), but results are robust to extensive sensitivity checks.

Approach

Our study provides an original alternative that hinges on very different data sources and a different set of assumptions. We begin with a simple modelling of the relationship between top wine prices and top income shares. Starting from the determination of prices as a function of income and relatively constant supply (variations in quantities and yields can be controlled for empirically), we obtain that fine wine prices essentially reflect the inequality in income since most of price effects are demand driven.

Then we bring this simple approach to the data: we avail of basic wine price series over two centuries as well as the prices of most of the wines of the five groups of ‘grands crus’ (great-growth) from 1818 to 2010. For the latter we use data compiled from the records of the brokers Tastet & Lawton (Chevet et al., 2011), from the Municipal Archives of Bordeaux. Price series are consistent with those of Penning-Rowsell (1975) for the period investigated by the latter (1831-1937). We use additional information such as cost-of-living indices (from Levy-Leboyer and Bourguignon, 1985, for the 19th century, and official data from the French Institute of Statistics, INSEE, for the 20th century). We calculate a top income share on the basis of the ratio between top wine prices and basic wine prices – and do so for different levels of premium wines reflecting different cutoffs of the top income distribution. Our measure characterizes the “global rich”, whose nature varies over time. In the 19th century, they are more to be found in the UK, the US but also rich countries such as Argentina. Since the globalization trends of the past three decades, global rich are concentrated both in the Western world and in other parts of the world including China and Russia, two countries for which income tax data cannot be credibly rely upon. Hence our measure becomes an interesting proxy for global top incomes in the absence of a comprehensive coverage of the super rich in the recent years.

Robustness checks and validation attempts must involve a comparison with the series of Piketty, Atkinson and coauthors. An impediment to this comparison is the evolving nature of the super rich, underlying our top wine indices. Thus, we construct an alternative comparator based on WID data but where countries are weighted by time-varying levels of export flows of top Bordeaux wines from France to the world. This comparison also provides the means to perform some adjustments and account for events and variations that are specific to the fine wine sector (or can affect wine prices in general – but not top incomes): the phylloxera disease around 1865-1890 (prices expected to increase in this period), subsequent overproduction around the turn of the century (prices below long-term trends), price surge during run-up of financial/economic crisis (especially 1929 and 2008), wars (the boom in prices in the 1940s resulted from widespread speculation during World War II) and unusual weather conditions (see Chevet et al.).

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